SWEPCO SOLID FUEL UNITS

COAL UNITS 400-599 MW

Figure 1

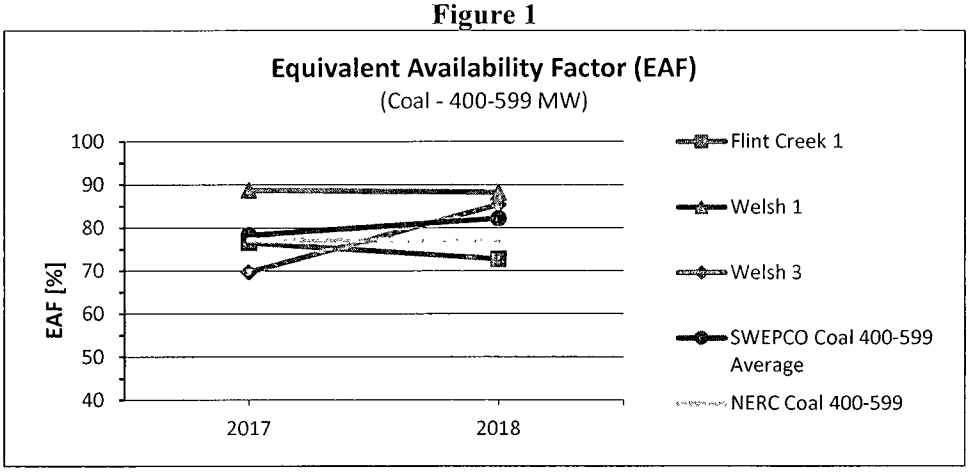
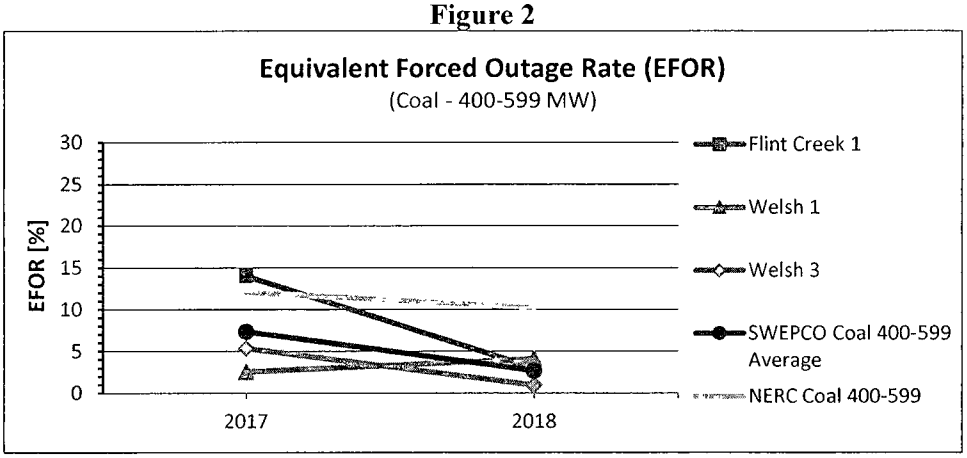


Figure 2



SWEPCO SOLID FUEL UNITS

COAL UNITS 600-799 MW

Figure 3

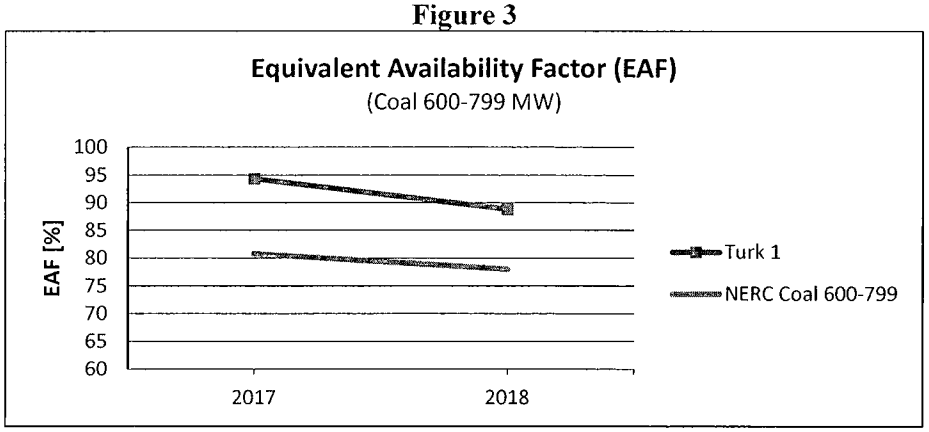
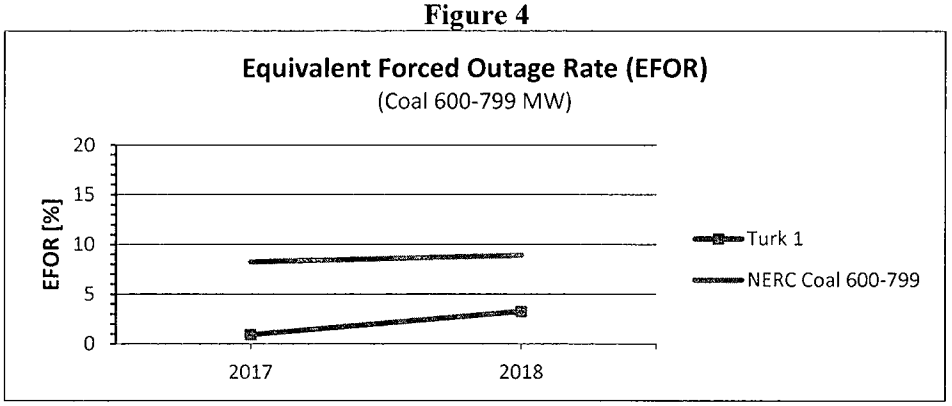


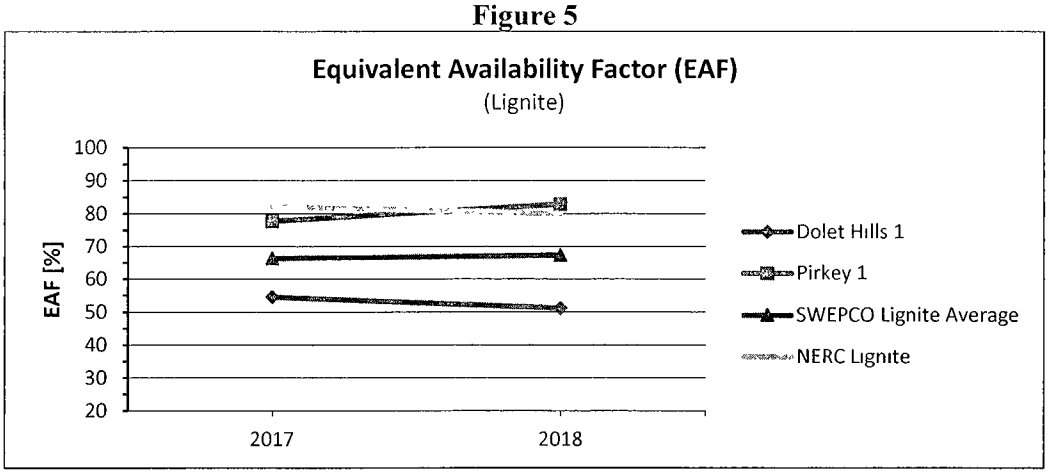
Figure 4



SWEPCO SOLID FUEL UNITS

LIGNITE UNITS

Figure 5



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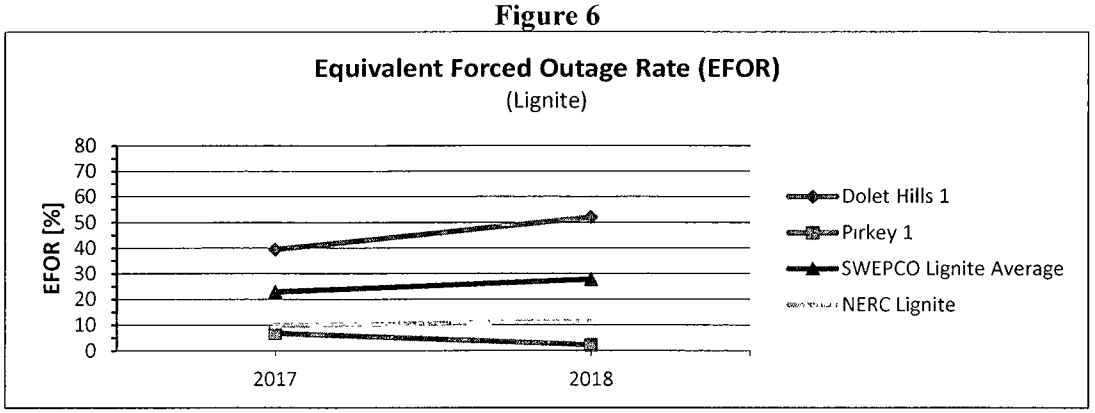


SWEPCO NATURAL GAS UNITS

COMBINED CYCLE UNITS

Figure 1

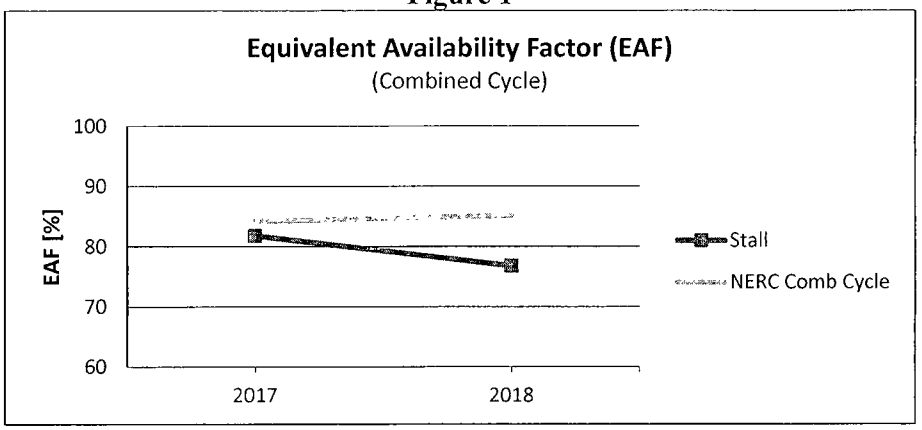
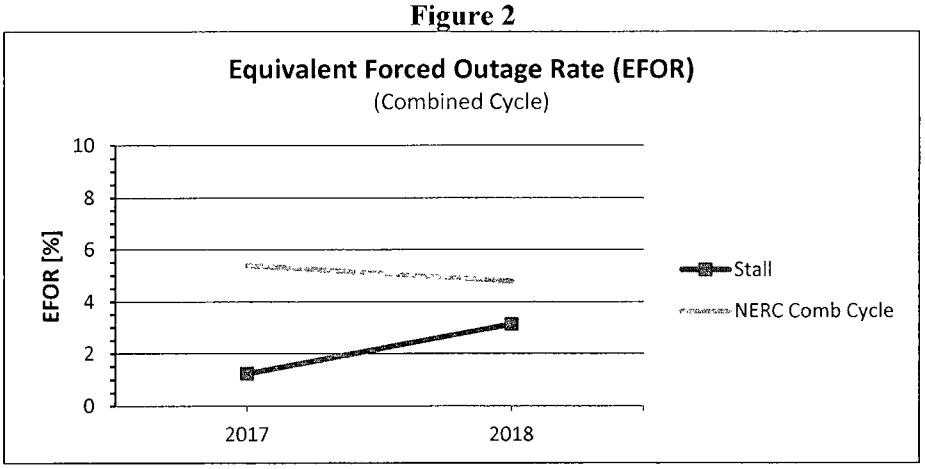


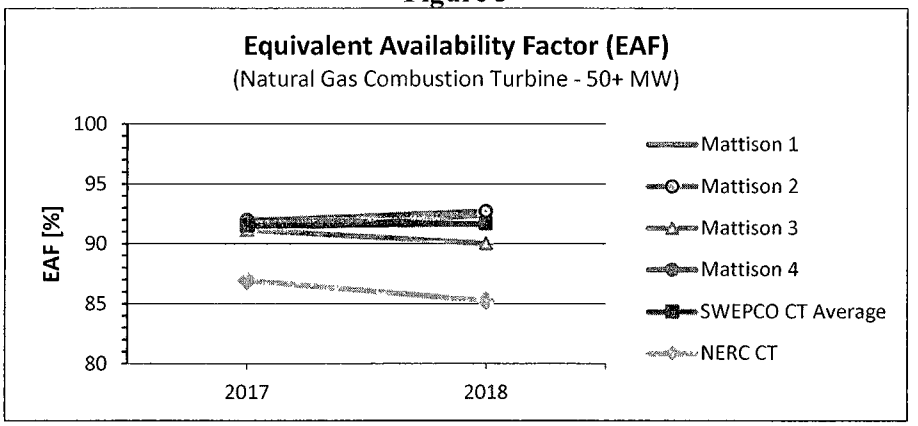
Figure 2



SWEPCO NATURAL GAS UNITS

COMBUSTION TURBINE UNITS 50+ MW

Figure 3



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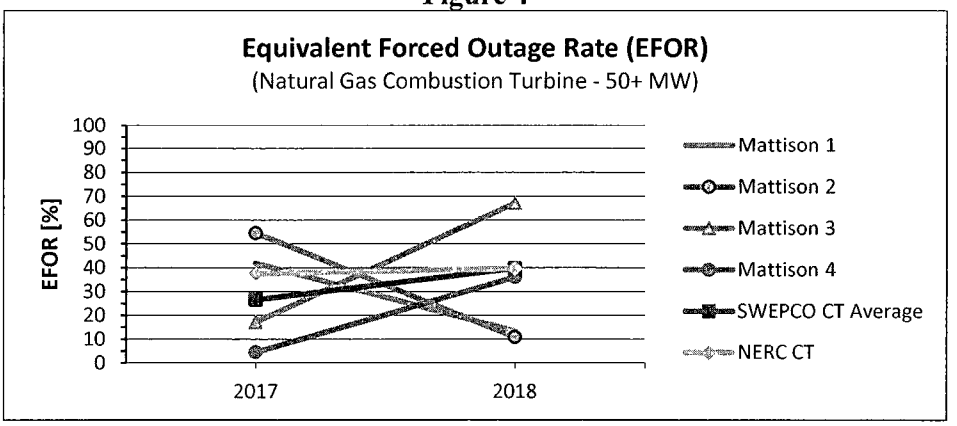


SWEPCO NATURAL GAS UNITS

NATURAL GAS 100-199 MW

Figure 5

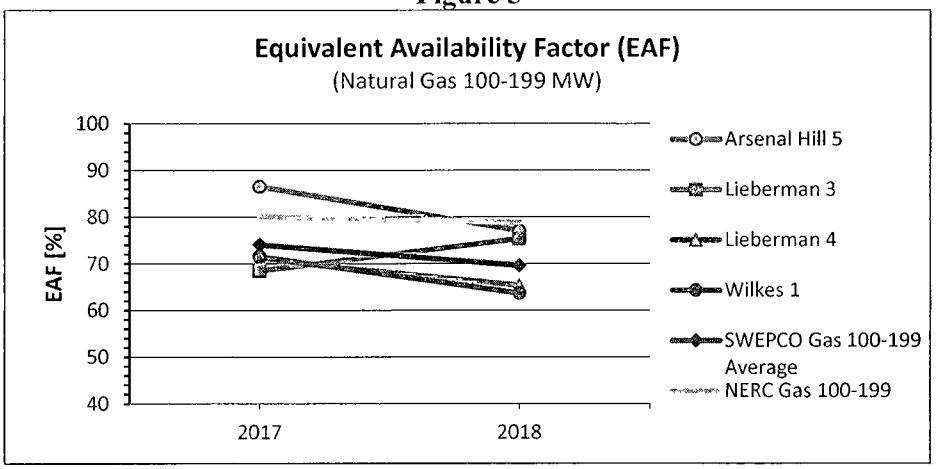
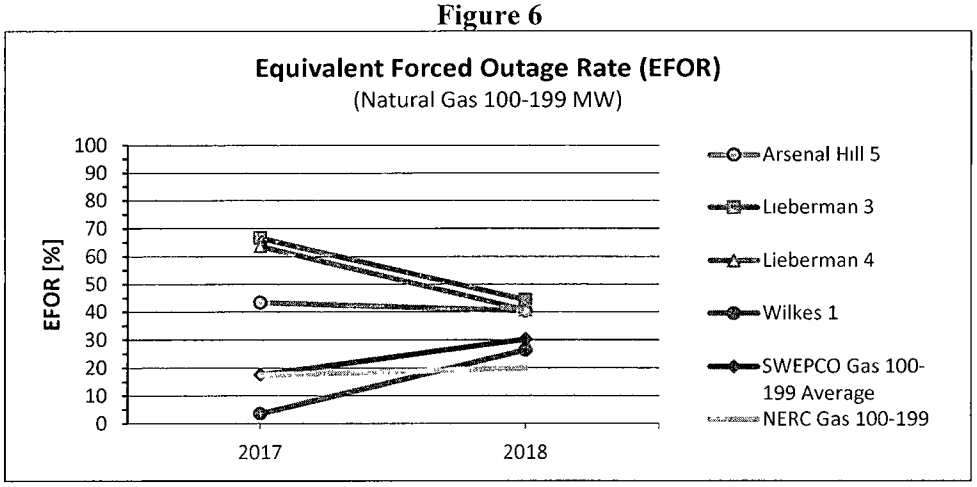


Figure 6



SWEPCO NATURAL GAS UNITS

NATURAL GAS 300-399 MW

Figure 7

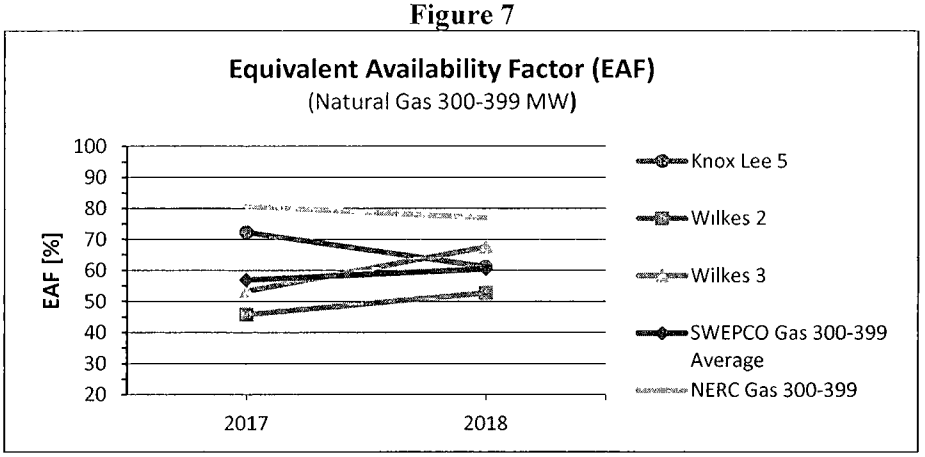
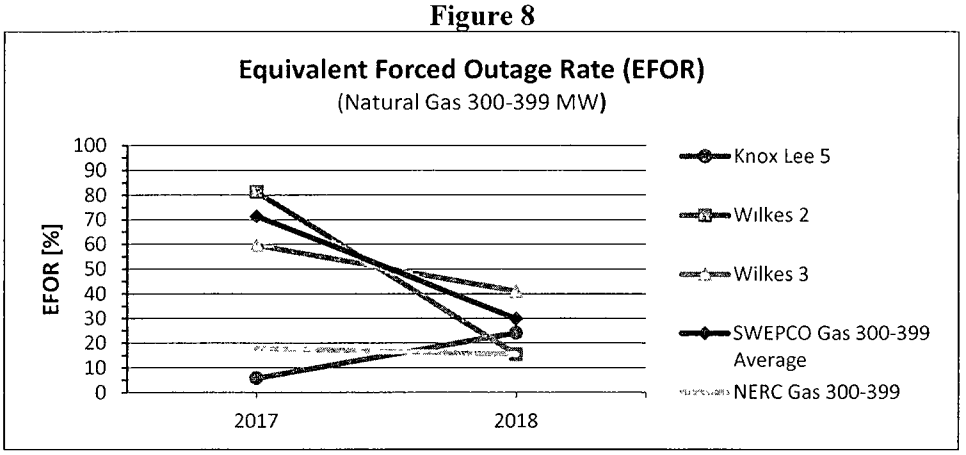


Figure 8



EXECUTIVE SUMMARY OF DYLAN W. D'ASCENDIS

Mr. D'Ascendis' Direct Testimony establishes that a Return on Equity (referred to as the "ROE" or the "Cost of Equity") rate in the range of 10.32% to 11.43% is necessary for Southwestern Electric Power Company ("SWEPCO" or the "Company") to provide a reasonable return to its equity investors. His recommended range considers a variety of factors that affect the required return to equity investors including:

- The multiple analytical approaches that were evaluated to develop his recommended range; and
- How the Cost of Equity is affected by the Company's relative small size and its lower credit rating.

Mr. D'Ascendis' Direct Testimony presents multiple analytical techniques for the purposes of estimating the Company's ROE. To develop his recommendation, he estimated the ROE using the Constant Growth Discounted Cash Flow ("DCF") model, the Risk Premium Model ("RPM"), and the Capital Asset Pricing Model ("CAPM"), and applied those methodologies to a proxy group of electric utilities ("Utility Proxy Group"), as well as to a proxy group of non-price regulated companies similar in total risk to the Utility Proxy Group ("Non-Price Regulated Proxy Group").

Together with the Schedules attached to Mr. D'Ascendis' Direct Testimony, this evidence demonstrates that a Cost of Equity rate in the range of 10.32% to 11.43% is reasonable, and should be adopted for SWEPCO in order to provide the Company with an opportunity to generate earnings that maintain a reasonable return to its equity investors.

PUBLIC UTILITY COMMISSION OF TEXAS

APPLICATION OF

SOUTHWESTERN ELECTRIC POWER COMPANY

FOR AUTHORITY TO CHANGE RATES

DIRECT TESTIMONY OF

DYLAN W. D'ASCENDIS

FOR

SOUTHWESTERN ELECTRIC POWER COMPANY

OCTOBER 2020

TABLE OF CONTENTS

LIST OF SCHEDULES

I. INTRODUCTION AND PURPOSE

Q. PLEASE STATE YOUR NAME, AFFILIATION, AND BUSINESS ADDRESS.

A. My name is Dylan W. D'Ascendis. I am employed by ScottMadden, Inc. as Director. My business address is 3000 Atrium Way, Suite 241, Mount Laurel, NJ 08054.

Q. ON WHOSE BEHALF ARE YOU SUBMITTING THIS TESTIMONY?

A. I am submitting this direct testimony (referred to throughout as my "Direct Testimony") before the Public Utility Commission of Texas ("Commission") on behalf of Southwestern Electric Power Company ("SWEPCO" or the "Company").

Q. PLEASE SUMMARIZE YOUR PROFESSIONAL EXPERIENCE AND EDUCATIONAL BACKGROUND.

A. I have offered expert testimony on behalf of investor-owned utilities in over 20 state regulatory commissions in the United States, the Federal Energy Regulatory Commission, the Alberta Utility Commission, and one American Arbitration Association panel on issues including, but not limited to, common equity cost rate, rate of return, valuation, capital structure, class cost of service, and rate design.

On behalf of the American Gas Association ("AGA"), I calculate the AGA Gas Index, which serves as the benchmark against which the performance of the American Gas Index Fund ("AGIF") is measured on a monthly basis. The AGA Gas Index and AGIF are a market capitalization weighted index and mutual fund, respectively, comprised of the common stocks of the publicly traded corporate members of the AGA.

I am a member of the Society of Utility and Regulatory Financial Analysts ("SURFA"). In 2011, I was awarded the professional designation "Certified Rate of Return Analyst" by SURFA, which is based on education, experience, and the successful completion of a comprehensive written examination.

I am also a member of the National Association of Certified Valuation Analysts ("NACVA") and was awarded the professional designation "Certified Valuation Analyst" by the NACVA in 2015.

I am a graduate of the University of Pennsylvania, where I received a Bachelor of Arts degree in Economic History. I have also received a Master of Business Administration with high honors and concentrations in Finance and International Business from Rutgers University.

The details of my educational background and expert witness appearances are shown in Appendix A.

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. The purpose of my testimony is to present evidence on behalf of SWEPCO and recommend an ROE for its Texas jurisdictional rate base, and to assess the Company's actual capital structure ratios.

Q. HAVE YOU PREPARED SCHEDULES IN SUPPORT OF YOUR RECOMMENDATION?

A. Yes. I have prepared Schedules DWD-1 through DWD-8, which were prepared by me or under my direction.

II. SUMMARY

Q. WHAT IS YOUR RECOMMENDED ROE FOR SWEPCO?

A. I recommend that the Commission authorize SWEPCO the opportunity to earn an ROE of 10.35% on its jurisdictional rate base within a reasonable range of 10.32% to 11.43%. The ratemaking capital structure and cost of long-term debt is sponsored by Company Witness Hawkins. The overall rate of return is summarized on page 1 of Schedule DWD-1 and in Table 1 below:

Table 1: Summary of Recommended Weighted Average Cost of Capital

Type of Capital	Ratios	Cost Rate	Weighted Cost Rate
Long-Term Debt	50.63%	4.18%	2.11%
Common Equity	49.37%	10.35%	5.11%
Total	100.00%		7.22%

Q. PLEASE SUMMARIZE YOUR RECOMMENDED ROE.

A. My recommended ROE of 10.35% is summarized on page 2 of Schedule DWD-1. I have assessed the market-based common equity cost rates of companies of relatively similar, but not necessarily identical, risk to SWEPCO. Using companies of relatively comparable risk as proxies is consistent with the principles of fair rate of return established in the *Hope*[1] and *Bluefield*[2] decisions. No proxy group can be identical in risk to any single company. Consequently, there must be an evaluation of relative risk between the company and the proxy group to determine if it is appropriate to adjust the proxy group's indicated rate of return.

1 *Federal Power Comm'n v Hope Natural Gas Co.*, 320 U.S. 591 (1944) ("*Hope*").
2 *Bluefield Water Works Improvement Co. v Public Serv. Comm'n*, 262 U.S. 679 (1922) ("*Bluefield*").

My recommendation results from applying several cost of common equity models, specifically the DCF model, the RPM, and the CAPM, to the market data of the Utility Proxy Group whose selection criteria will be discussed below. In addition, I applied the DCF model, RPM, and CAPM to the Non-Price Regulated Proxy Group. The results derived from each are as follows:

Table 2: Summary of Common Equity Cost Rates

Discounted Cash Flow Model	8.73%
Risk Premium Model	10.54%
Capital Asset Pricing Model	12.46%
Cost of Equity Models Applied to Comparable Risk, Non-Price Regulated Companies	12.12%
Indicated Range of Common Equity Cost Rates Before Adjustments	9.85% - 10.96%
Size Adjustment	0.20%
Credit Risk Adjustment	0.27%
Indicated Range of Common Equity Cost Rates after Adjustment	10.32% - 11.43%
Recommended Cost of Common Equity	10.35%

The indicated range of common equity cost rates applicable to the Utility Proxy Group is between 9.85% and 10.96% before any Company-specific adjustments. The 9.85% low end of the range is calculated by taking the average model result (10.96%), and averaging that with the lowest model result (8.73%). The 10.96% high end of the range is the average of all model results.

I then adjusted the indicated common equity cost rate upward by 0.20% and 0.27% to reflect the Company's smaller relative size and riskier bond rating, as compared to the Utility Proxy Group. These adjustments resulted in a Company-specific indicated range of common equity cost rates between 10.32% and 11.43%.

Given the Utility Proxy Group and Company-specific ranges of common equity cost rates, my recommended ROE for SWEPCO is 10.35%.

Q. WHY DID YOU USE THE MIDPOINT BETWEEN YOUR AVERAGE MODEL RESULT AND YOUR LOWEST MODEL RESULT AS THE BOTTOM OF YOUR INDICATED REASONABLE RANGE BEFORE ADJUSTMENT?

A. As will be explained in detail below, the turmoil in markets attributable to the COVID-19 pandemic has increased risk for the entire economy generally, and utilities, specifically. Key takeaways include:

- The full impact and duration of the COVID-19 pandemic are unknown, and outcomes are highly uncertain;

- This uncertainty increases volatility. Volatility increases the chances of investment losses. As a result, investors flee to bonds to limit their investment losses, which is known as "the flight to safety". Increased levels of bond purchases increase their price, and drive down their yields, *i.e.,* interest rates. Because of this, the current low-interest rate environment is due to increased volatility in the market, and not a steady lowering of the cost of debt over time;

- The same increased market volatility that caused investors' "flight to safety" also created a situation where utilities are traded similar to the S&P 500. These correlated returns of utility stocks and market indices increase Beta coefficients (a measure of risk), and by extension, investor-required returns; and

- Investor-influencing publications such as *Blue Chip Financial Forecasts* ("*Blue Chip*"), Standard & Poor's ("S&P"), and Moody's Investor Service ("Moody's") have recognized the risks of the COVID-19 pandemic, and have reflected them in their analyses.

My recommendation to use the lower end of the range of my results for the bottom of my Utility Proxy Group reasonable range is designed to be conservative given that volatility and uncertainty.

III. CAPITAL MARKET CONDITIONS

Q. PLEASE SUMMARIZE THE RECENT CAPITAL MARKET CONDITIONS.

A. The recent, dramatic shifts in the capital markets brought about by COVID-19 cannot be overstated. Central banks have implemented multiple policies to address the financial market instability. The Federal Reserve reduced the overnight lending rate to a target range of 0.00% to 0.25%, announced plans to increase holdings of Treasury securities and agency mortgage-backed securities by a total of $700 billion,[3] established a facility to facilitate lending to small businesses via the Small Business Administration's Paycheck Protection Program ("PPP") by providing term financing backed by PPP loans,[4] and took additional actions to provide up to $2.3 trillion in loans to support the economy.[5]

The U.S. Government also acted to attempt to address the unstable financial markets. The Coronavirus Aid, Relief, and Economic Security Act, provided $2.4 trillion in economic stimulus and the PPP and Health Care Enhancement Act provided an additional $484 billion in emergency aid.[6]

Despite government and central bank actions, the 30-Year Treasury bond yield has remained highly volatile, as seen in its coefficient of variation[7] (*see* Chart 1, below).

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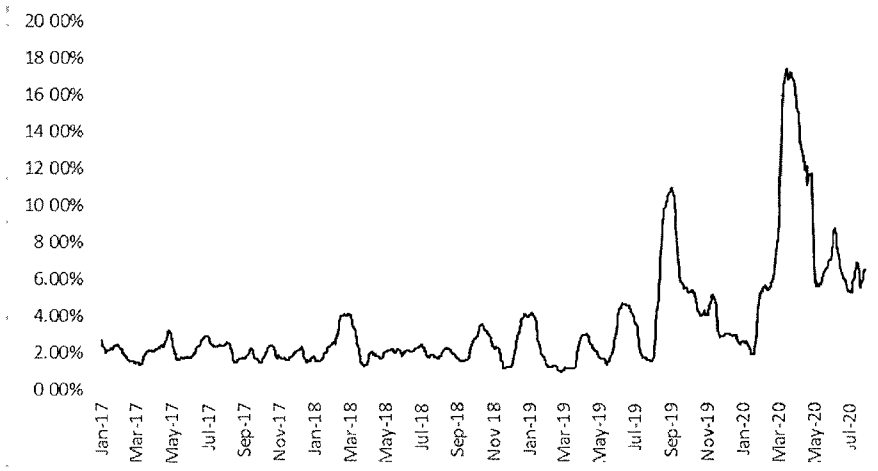
3 Federal Reserve Press Release, March 15, 2020.
4 Federal Reserve Press Release, April 6, 2020.
5 Federal Reserve Press Release, April 9, 2020.
6 S&P Global Market Intelligence, *Trump signs $484B coronavirus relief package into law*, April 24, 2020.
7 The coefficient of variation is used by investors and economists to determine volatility.

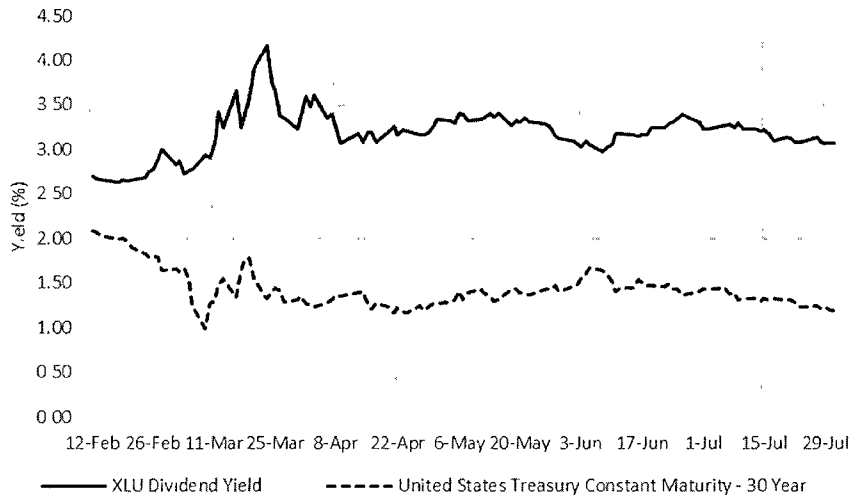
Chart 1: Coefficient of Variation in 30-Year Treasury Yields[8]



Investor reactions to the market instability also are reflected in the "yield spread", or the difference between dividend yields and long-term Government bond yields. As the 30-year Treasury yield fell, utility dividend yields increased, widening the yield spread (*see* Chart 2, below). That pattern, in which utility dividend yields move in the opposite direction of interest rates, reflects the disjointed capital market, and investors' reactions to it. Under more "normal" conditions, dividend yields tend to be directionally related to Treasury yields, such that the yield spread remains relatively constant. But that relationship has a limit. Investors will not continuously bid up utility prices as interest rates fall; the widening yield spread demonstrates as much.

8 Source: Bloomberg Professional Service.

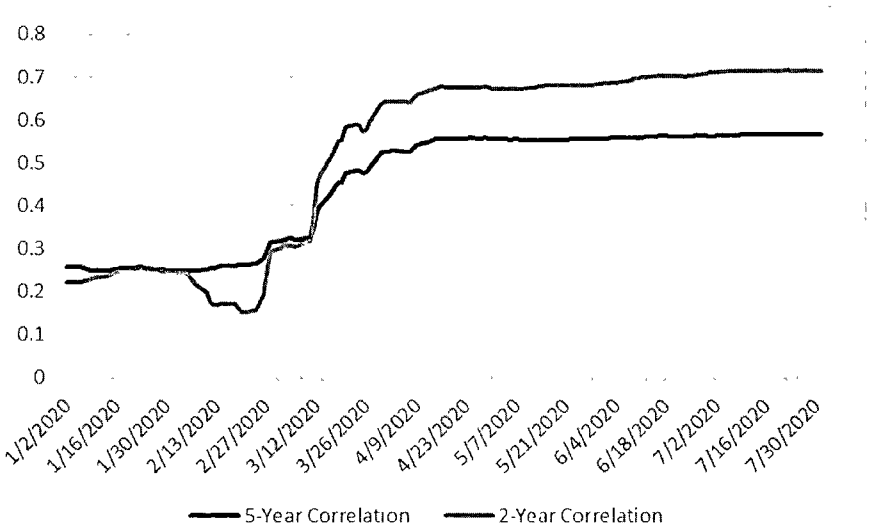
Chart 2: Utility Dividend Yields vs. 30-Year Treasury Yields[9]



Additionally, I assessed the correlation of the changes in prices in the XLU[10] with the changes in prices of the S&P 500 to determine whether there was any relationship between the two during the current crisis. As shown in Chart 3 below, as the Coronavirus threat became apparent (*i.e.*, mid-February 2020), the correlation between the price changes of the XLU and the price changes of the S&P 500 increased from near 0.20 to near 0.70 (using a two-year correlation, consistent with Bloomberg Beta calculations) and from 0.25 to nearly 0.60 (using a five-year correlation, consistent with *Value Line Investment Survey's* ("*Value Line*") Beta calculations).

9 Source: S&P Capital IQ.
10 The Utilities Select Sector SPDR® Fund, which serves as a proxy for publicly traded electric utility stocks.

Chart 3: Correlation Between Price Movements of the XLU and S&P 500 Since January 2020[11]



This increase in correlation between price changes for the XLU and those for the S&P 500 is not surprising. As Morningstar recently explained, during volatile markets there often is little distinction in risk across assets or portfolios. That is, "correlations go to 1."[12] When that happens, utility stocks lose their "defensive" quality.

Q. ARE YOU AWARE OF ANY INVESTOR-INFLUENCING PUBLICATIONS THAT INDICATED THE COST OF CAPITAL HAS INCREASED DURING THE RECENT MARKET DISLOCATION?

A. Yes. The April 10, 2020 edition of *Blue Chip Economic Indicators* ("*BCEI*") described the pandemic's effect on the general economy as follows:

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11 Source: S&P Capital IQ.

12 Morningstar, *Correlations Going to 1 Amid Market Collapse, U.S Stock Fund Factors Show Little Differentiation*, March 6, 2020.

> This month's *Blue Chip Economic Indicators* panel's forecast for real GDP in Q2 2020 is estimated to set a historical record – by far: a plunge of -24.5% SAAR [Seasonally Adjusted Annual Rate]. The previous record was -10.0% in Q1 1958; quarterly data began in Q1 1947. In its February forecast, the panel had projected Q2 growth to be 1.9% SAAR and in March 1.0%.[13]

BCEI further explained that it expects the "easing of the current outbreak of the disease and accompanying social distancing practices will support a visible recovery in the second half of this year and on into 2021." At the same time, *BCEI* cautioned that "the speed of the recovery would be nowhere near the magnitude of the drop," and according to its consensus forecast, "real GDP would not recover to its previous peak until the fourth quarter of 2021."[14]

It is within that broad context that S&P downgraded its outlook on the utility sector from "Stable" to "Negative", explaining that it expects a 12.00% contraction in GDP during the second quarter of 2020, reducing commercial and industrial usage.[15]

Although utilities have some discretion as to how they may reduce capital investments while maintaining safe and reliable service, in a prolonged recession they may consider reducing dividend payments. As S&P notes, "[t]here is precedent that during times of high financial stress, utilities have reduced their dividends and we would expect that the industry, if necessary, would use this lever, acting prudently to preserve credit quality."[16] It is through such "levers" that S&P expects the sector to remain a high quality, investment grade industry.[17]

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13 Blue Chip Economic Indicators, April 10, 2020, at 1. [clarification added]
14 *Ibid.*
15 S&P Global Ratings, *COVID-19: The Outlook For North American Regulated Utilities Turns Negative, April 2, 2020*, at 1, 6-7.
16 *Ibid.*. at 9.
17 *Ibid.*

Moody's similarly observed that "[i]n a prolonged economic downturn, boards of directors are likely to review dividend plans as an option to conserve cash."[18] Moody's expects companies with higher payout ratios as more likely to reduce dividends, and sees the potential for average dividend payout ratios to increase to about 80.00% from a median of 63.00% in 2019.[19] In Moody's view, the ability to reduce dividends provides utilities "with a significant source of internal cash that could help them offset the impact of a potentially prolonged coronavirus-related economic downturn."[20]

S&P and Moody's both point to reducing the growth in dividends as a means of preserving credit quality in the event of a prolonged economic downturn. Doing so, however, comes at the expense of equity investors. The potential tension between maintaining credit quality and preserving dividends is another reason the Cost of Equity may increase.

In short, during a period of heightened and possibly prolonged market uncertainty, observable market information makes clear that utility investors now face greater risks and require higher returns.

18 Moody's Investors Service, *Dividends a major source of cash if coronavirus downturn is prolonged*, April 6, 2020, at 1.
19 *Ibid.*, at 2-3.
20 *Ibid.*, at 1.

IV. GENERAL PRINCIPLES

Q. WHAT GENERAL PRINCIPLES HAVE YOU CONSIDERED IN ARRIVING AT YOUR RECOMMENDED COMMON EQUITY COST RATE OF 10.35%?

A. In unregulated industries, marketplace competition is the principal determinant of the price of products or services. For regulated public utilities, regulation must act as a substitute for marketplace competition. Assuring that the utility can fulfill its obligations to the public, while providing safe and reliable service at all times, requires a level of earnings sufficient to maintain the integrity of presently invested capital. Sufficient earnings also permit the attraction of needed new capital at a reasonable cost, for which the utility must compete with other firms of comparable risk, consistent with the fair rate of return standards established by the U.S. Supreme Court in the previously cited *Hope* and *Bluefield* cases. Consequently, marketplace data must be relied on in assessing a common equity cost rate appropriate for ratemaking purposes. Just as the use of market data for the Utility Proxy Group adds the reliability necessary to inform expert judgment in arriving at a recommended common equity cost rate, the use of multiple generally accepted common equity cost rate models also adds reliability and accuracy when arriving at a recommended common equity cost rate.

A. Business Risk

Q. PLEASE DEFINE BUSINESS RISK AND EXPLAIN WHY IT IS IMPORTANT FOR DETERMINING A FAIR RATE OF RETURN.

A. The investor-required return on common equity reflects investors' assessment of the total investment risk of the subject firm. Total investment risk is often discussed in

the context of business and financial risk.

Business risk reflects the uncertainty associated with owning a company's common stock without the company's use of debt and/or preferred stock financing. One way of considering the distinction between business and financial risk is to view the former as the uncertainty of the expected earned return on common equity, assuming the firm is financed with no debt.

Examples of business risks generally faced by utilities include, but are not limited to, the regulatory environment, mandatory environmental compliance requirements, customer mix and concentration of customers, service territory economic growth, market demand, risks and uncertainties of supply, operations, capital intensity, size, the degree of operating leverage, emerging technologies including distributed energy resources, the vagaries of weather, and the like, all of which have a direct bearing on earnings. Although analysts, including rating agencies, may categorize business risks individually, as a practical matter, such risks are interrelated and not wholly distinct from one another. Therefore, it is difficult to specifically and numerically quantify the effect of any individual risk on investors' required return, *i.e.*, the cost of capital. For determining an appropriate return on common equity, the relevant issue is where investors see the subject company as falling within a spectrum of risk. To the extent investors view a company as being exposed to higher risk, the required return will increase, and vice versa.

For regulated utilities, business risks are both long-term and near-term in nature. Whereas near-term business risks are reflected in year-to-year variability in earnings and cash flow brought about by economic or regulatory factors, long-term

business risks reflect the prospect of an impaired ability of investors to obtain both a fair rate of return on, and return of, their capital. Moreover, because utilities accept the obligation to provide safe, adequate, and reliable service at all times (in exchange for a reasonable opportunity to earn a fair return on their investment), they generally do not have the option to delay, defer, or reject capital investments. Because those investments are capital-intensive, utilities generally do not have the option to avoid raising external funds during periods of capital market distress, if necessary.

Because utilities invest in long-lived assets, long-term business risks are of paramount concern to equity investors. That is, the risk of not recovering the return on their investment extends far into the future. The timing and nature of events that may lead to losses, however, also are uncertain and, consequently, those risks and their implications for the required return on equity tend to be difficult to quantify. Regulatory commissions (like investors who commit their capital) must review a variety of quantitative and qualitative data and apply their reasoned judgment to determine how long-term risks weigh in their assessment of the market-required return on common equity.

B. Financial Risk

Q. PLEASE DEFINE FINANCIAL RISK AND EXPLAIN WHY IT IS IMPORTANT IN DETERMINING A FAIR RATE OF RETURN.

A. Financial risk is the additional risk created by the introduction of debt and preferred stock into the capital structure. The higher the proportion of debt and preferred stock in the capital structure, the higher the financial risk to common equity owners (*i.e.*, failure to receive dividends due to default or other covenants). Therefore, consistent

with the basic financial principle of risk and return, common equity investors require higher returns as compensation for bearing higher financial risk.

Q. CAN BOND AND CREDIT RATINGS BE A PROXY FOR A FIRM'S COMBINED BUSINESS AND FINANCIAL RISKS TO EQUITY OWNERS (*I.E.*, INVESTMENT RISK)?

A. Yes, similar bond ratings/issuer credit ratings reflect, and are representative of, similar combined business and financial risks (*i.e.*, total risk) faced by bond investors.[21] Although specific business or financial risks may differ between companies, the same bond/credit rating indicates that the combined risks are roughly similar from a debtholder perspective. The caveat is that these debtholder risk measures do not translate directly to risks for common equity.

Q. DO RATING AGENCIES ACCOUNT FOR COMPANY SIZE IN THEIR BOND RATINGS?

A. No. Neither S&P nor Moody's have minimum company size requirements for any given rating level. This means, all else equal, a relative size analysis must be conducted for equity investments in companies with similar bond ratings.

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21 Risk distinctions within S&P's bond rating categories are recognized by a plus or minus, e.g., within the A category, an S&P rating can be an A+, A, or A-. Similarly, risk distinction for Moody's ratings are distinguished by numerical rating gradations, e.g., within the A category, a Moody's rating can be A1, A2 and A3.

V. SWEPCO AND THE UTILITY PROXY GROUP

Q. ARE YOU FAMILIAR WITH SWEPCO'S OPERATIONS?

A. Yes. SWEPCO provides electric services to approximately 540,000 retail customers in Texas, Louisiana, and Arkansas.[22] SWEPCO has long-term issuer ratings of Baa2 from Moody's and A- from S&P. SWEPCO is not publicly-traded as it comprises an operating subsidiary of American Electric Power Company, Inc. ("AEP" or the "Parent"), which has electric distribution operations in 11 states[23] and serves approximately 5.5 million customers, and is publicly-traded under ticker symbol AEP.

Page 1 of Schedule DWD-2 contains comparative capitalization and financial statistics for SWEPCO for the years 2015 to 2019.[24] During the five-year period ending 2019, the historically achieved average earnings rate on book common equity for SWEPCO averaged 7.06%. The average common equity ratio based on total permanent capital (excluding short-term debt) was 47.97%, and the average dividend payout ratio was 58.18%.

Total debt to earnings before interest, taxes, depreciation, and amortization for the years 2015 to 2019 ranges between 3.92 and 5.09 times, with an average of 4.76 times. Funds from operations to total debt range from 11.49% to 19.40%, with an average of 15.58%.

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22 *See*, American Electric Power Company Inc., SEC Form 10-K at 3 (Dec. 31, 2019). The Company also provides wholesale electric service to municipal and electric cooperative customers who serve additional retail customers.

23 *See*, American Electric Power Company Inc., SEC Form 10-K at 1 (Dec. 31, 2019). In addition to Texas, AEP also serves customers in Arkansas, Indiana, Kentucky, Louisiana, Michigan, Ohio, Oklahoma, Tennessee, Virginia, and West Virginia.

24 Source: SWEPCO FERC Form 1.

Q. PLEASE EXPLAIN HOW YOU CHOSE THE COMPANIES IN THE UTILITY PROXY GROUP.

A. The companies selected for the Utility Proxy Group met the following criteria:

(i) They were included in the Eastern, Central, or Western Electric Utility Group of *Value Line* (Standard Edition);

(ii) They have 70% or greater of fiscal year 2019 total operating income derived from, and 70% or greater of fiscal year 2019 total assets attributable to, regulated electric operations;

(iii) They are vertically integrated (*i.e.,* utilities that own and operate regulated generation, transmission, and distribution assets);

(iv) At the time of preparation of this testimony, they had not publicly announced that they were involved in any major merger or acquisition activity (*i.e.*, one publicly-traded utility merging with or acquiring another) or any other major development;

(v) They have not cut or omitted their common dividends during the five years ended 2019 or through the time of preparation of this testimony;

(vi) They have *Value Line* and Bloomberg Professional Services ("Bloomberg") adjusted Betas;

(vii) They have positive *Value Line* five-year dividends per share ("DPS") growth rate projections; and

(viii) They have *Value Line*, Zacks, or Yahoo! Finance consensus five-year earnings per share ("EPS") growth rate projections.

The following 14 companies met these criteria:

Table 3: Utility Proxy Group Companies

Company Name	Ticker Symbol
ALLETE, Inc.	ALE
Alliant Energy Corporation	LNT
Ameren Corporation	AEE
Duke Energy Corporation	DUK
Edison International	EIX
Entergy Corporation	ETR
IDACORP, Inc.	IDA
NorthWestern Corporation	NWE
OGE Energy Corporation	OGE
Otter Tail Corporation	OTTR
Pinnacle West Capital Corporation	PNW
PNM Resources, Inc.	PNM
Portland General Electric Co.	POR
Xcel Energy, Inc.	XEL

Q. PLEASE DESCRIBE SCHEDULE DWD-2, PAGE 2.

A. Page 2 of Schedule DWD-2 contains comparative capitalization and financial statistics for the Utility Proxy Group for the years 2015 to 2019.

During the five-year period ending 2019, the historically achieved average earnings rate on book common equity for the group averaged 8.60%, the average common equity ratio based on total permanent capital (excluding short-term debt) was 48.33%, and the average dividend payout ratio was 60.94%.

Total debt to earnings before interest, taxes, depreciation, and amortization for the years 2015 to 2019 ranges between 4.03 and 5.27 times, with an average of 4.62 times. Funds from operations to total debt range from 15.07% to 23.09%, with an average of 19.47%.

VI. CAPITAL STRUCTURE

Q. WHAT IS SWEPCO'S REQUESTED CAPITAL STRUCTURE?

A. SWEPCO's requested capital structure consists of 50.63% long-term debt and 49.37% common equity. SWEPCO's requested capital structure is its actual capital structure at March 31, 2020, as testified to by Company Witness Hawkins.

Q. DOES SWEPCO HAVE A SEPARATE CAPITAL STRUCTURE THAT IS RECOGNIZED BY INVESTORS?

A. Yes. SWEPCO is a separate corporate entity that has its own capital structure and issues its own debt. SWEPCO's actual capital structure is reflected in registrations of its debt with the Securities Exchange Commission.

Q. WHAT ARE THE TYPICAL SOURCES OF CAPITAL COMMONLY CONSIDERED IN ESTABLISHING A UTILITY'S CAPITAL STRUCTURE?

A. Common equity and long-term debt are commonly considered in establishing a utility's capital structure because they are the typical sources of capital financing a utility's rate base.

Q. PLEASE EXPLAIN.

A. Long-lived assets are typically financed with long-lived securities, so that the overall term structure of the utility's long-term liabilities (both debt and equity) closely match the life of the assets being financed. As stated by Brigham and Houston:

> In practice, firms don't finance each specific asset with a type of capital that has a maturity equal to the asset's life. However, academic studies do show that most firms tend to finance short-term

assets from short-term sources and long-term assets from long-term sources.[25]

Whereas short-term debt has a maturity of one year or less, long-term debt may have maturities of 30 years or longer. Although there are practical financing constraints, such as the need to "stagger" long-term debt maturities, the general objective is to extend the average life of long-term debt. Still, long-term debt has a finite life, which is likely to be less than the life of the assets included in rate base. Common equity, on the other hand, is outstanding into perpetuity. Thus, common equity more accurately matches the life of the going concern of the utility, which is also assumed to operate in perpetuity. Consequently, it is both typical and important for utilities to have significant proportions of common equity in their capital structures.

Q. WHY IS IT IMPORTANT THAT THE COMPANY'S ACTUAL CAPITAL STRUCTURE, CONSISTING OF 50.63% LONG-TERM DEBT AND 49.37% COMMON EQUITY, BE AUTHORIZED IN THIS PROCEEDING?

A. In order to provide safe, reliable, and affordable service to its customers, SWEPCO must meet the needs and serve the interests of its various stakeholders, including customers, shareholders, and bondholders. The interests of these stakeholder groups are aligned with maintaining a healthy balance sheet, strong credit ratings, and a supportive regulatory environment, so that the Company has access to capital on reasonable terms in order to make necessary investments.

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25 Eugene F. Brigham and Joel F. Houston, Fundamentals of Financial Management, Concise 4th Ed., Thomson South-Western, 2004, at 574.

Safe and reliable service cannot be maintained at a reasonable cost if utilities do not have the financial flexibility and strength to access competitive financing markets on reasonable terms. The authorization of a capital structure that understates the Company's actual common equity will weaken the financial condition of its operations and adversely impact the Company's ability to address expenses and investments, to the detriment of customers and shareholders. Safe and reliable service for customers cannot be sustained over the long term if the interests of shareholders and bondholders are minimized such that the public interest is not optimized.

Q. HOW DOES THE COMPANY'S ACTUAL COMMON EQUITY RATIO OF 49.37% COMPARE WITH THE COMMON EQUITY RATIOS MAINTAINED BY THE UTILITY PROXY GROUP?

A. The Company's requested ratemaking common equity ratio of 49.37% for SWEPCO is reasonable and consistent with the range of common equity ratios maintained by the Utility Proxy Group. As shown on pages 3 and 4 of Schedule DWD-2, common equity ratios of the utilities range from 35.73% to 58.04% for fiscal year 2019.

I also considered *Value Line* projected capital structures for the utilities for 2023-2025. As shown in Table 4 below, that analysis shows a range of projected common equity ratios between 37.50% and 59.00%.

Table 4: *Value Line* Projected Equity Ratios of the Utility Proxy Group[26]

Company Name	Common Equity Ratio
ALLETE, Inc.	59.00%
Alliant Energy Corporation	48.00%
Ameren Corporation	50.00%
Duke Energy Corporation	45.00%
Edison International	37.50%
Entergy Corporation	41.00%
IDACORP, Inc.	53.50%
NorthWestern Corporation	50.00%
OGE Energy Corporation	51.50%
Otter Tail Corporation	53.00%
Pinnacle West Capital Corporation	46.50%
PNM Resources, Inc.	49.00%
Portland General Electric Co.	47.50%
Xcel Energy, Inc.	42.50%

In addition to comparing the Company's actual common equity ratio with common equity ratios currently and expected to be maintained by the Utility Proxy Group, I also compared the Company's actual common equity ratio with the equity ratios maintained by the operating subsidiaries of the Utility Proxy Group companies. As shown on page 5 of Schedule DWD-2, common equity ratios of the operating utility subsidiaries of the Utility Proxy Group range from 45.23% to 65.22% for fiscal year 2019.

26 *See*, pages 2 through 17 of Schedule DWD-3.

Q. IS SWEPCO'S ACTUAL EQUITY RATIO OF 49.37% APPROPRIATE FOR RATEMAKING PURPOSES GIVEN THE RANGE OF THE UTILITY PROXY GROUP?

A. Yes, it is. The Company's actual equity ratio of 49.37% is appropriate for ratemaking purposes in the current proceeding because it is within the range of the common equity ratios currently maintained and expected to be maintained, by the Utility Proxy Group and their operating subsidiaries.

VII. COMMON EQUITY COST RATE MODELS

A. Discounted Cash Flow Model

Q. WHAT IS THE THEORETICAL BASIS OF THE DCF MODEL?

A. The theory underlying the DCF model is that the present value of an expected future stream of net cash flows during the investment holding period can be determined by discounting those cash flows at the cost of capital, or the investors' capitalization rate. DCF theory indicates that an investor buys a stock for an expected total return rate, which is derived from the cash flows received from dividends and market price appreciation. Mathematically, the dividend yield on market price plus a growth rate equals the capitalization rate; *i.e.*, the total common equity return rate expected by investors.

Q. WHICH VERSION OF THE DCF MODEL DID YOU USE?

A. I used the single-stage constant growth DCF model in my analyses.

Q. PLEASE DESCRIBE THE DIVIDEND YIELD YOU USED IN APPLYING THE CONSTANT GROWTH DCF MODEL.

A. The unadjusted dividend yields are based on the proxy companies' dividends as of July 31, 2020, divided by the average closing market price for the 60 trading days ended July 31, 2020.[27]

Q. PLEASE EXPLAIN YOUR ADJUSTMENT TO THE DIVIDEND YIELD.

A. Because dividends are paid periodically (*e.g.* quarterly), as opposed to continuously (daily), an adjustment must be made to the dividend yield. This is often referred to as the discrete, or the Gordon Periodic, version of the DCF model.

DCF theory calls for using the full growth rate, or D_1, in calculating the model's dividend yield component. Since the companies in the Utility Proxy Group increase their quarterly dividends at various times during the year, a reasonable assumption is to reflect one-half the annual dividend growth rate in the dividend yield component, or $D_{1/2}$. Because the dividend should be representative of the next 12-month period, this adjustment is a conservative approach that does not overstate the dividend yield. Therefore, the actual average dividend yields in Column 1, page 1 of Schedule DWD-3 have been adjusted upward to reflect one-half the average projected growth rate shown in Column 6.

27 *See,* Column 1, page 1 of Schedule DWD-3.

Q. PLEASE EXPLAIN THE BASIS FOR THE GROWTH RATES YOU APPLY TO THE UTILITY PROXY GROUP IN YOUR CONSTANT GROWTH DCF MODEL.

A. Investors with more limited resources than institutional investors are likely to rely on widely available financial information services, such as *Value Line*, Zacks, and Yahoo! Finance. Investors realize that analysts have significant insight into the dynamics of the industries and individual companies they analyze, as well as companies' abilities to effectively manage the effects of changing laws and regulations, and ever-changing economic and market conditions. For these reasons, I used analysts' five-year forecasts of EPS growth in my DCF analysis.

Over the long run, there can be no growth in DPS without growth in EPS. Security analysts' earnings expectations have a more significant influence on market prices than dividend expectations. Thus, using projected earnings growth rates in a DCF analysis provides a better match between investors' market price appreciation expectations and the growth rate component of the DCF.

Q. PLEASE SUMMARIZE THE CONSTANT GROWTH DCF MODEL RESULTS.

A. As shown on page 1 of Schedule DWD-3, for the Utility Proxy Group, the mean result of applying the single-stage DCF model is 8.63%, the median result is 8.82%, and the average of the two is 8.73%. In arriving at a conclusion for the constant growth DCF-indicated common equity cost rate for the Utility Proxy Group, I relied on an average of the mean and the median results of the DCF.

B. The Risk Premium Model

Q. PLEASE DESCRIBE THE THEORETICAL BASIS OF THE RPM.

A. The RPM is based on the fundamental financial principle of risk and return; namely, that investors require greater returns for bearing greater risk. The RPM recognizes that common equity capital has greater investment risk than debt capital, as common equity shareholders are behind debt holders in any claim on a company's assets and earnings. As a result, investors require higher returns from common stocks than from bonds to compensate them for bearing the additional risk.

While it is possible to directly observe bond returns and yields, investors' required common equity returns cannot be directly determined or observed. According to RPM theory, one can estimate a common equity risk premium over bonds (either historically or prospectively), and use that premium to derive a cost rate of common equity. The cost of common equity equals the expected cost rate for long-term debt capital, plus a risk premium over that cost rate, to compensate common shareholders for the added risk of being unsecured and last-in-line for any claim on the corporation's assets and earnings upon liquidation.

Q. PLEASE EXPLAIN HOW YOU DERIVED YOUR INDICATED COST OF COMMON EQUITY BASED ON THE RPM.

A. To derive my indicated cost of common equity under the RPM, I used two risk premium methods. The first method was the Predictive Risk Premium Model ("PRPM") and the second method was a risk premium model using a total market approach. The PRPM estimates the risk-return relationship directly, while the total

market approach indirectly derives a risk premium by using known metrics as a proxy for risk.

Q. PLEASE EXPLAIN THE PRPM.

A. The PRPM, published in the *Journal of Regulatory Economics,*[28] was developed from the work of Robert F. Engle, who shared the Nobel Prize in Economics in 2003 "for methods of analyzing economic time series with time-varying volatility" or ARCH.[29] Engle found that volatility changes over time and is related from one period to the next, especially in financial markets. Engle discovered that volatility of prices and returns clusters over time and is therefore highly predictable and can be used to predict future levels of risk and risk premiums.

The PRPM estimates the risk-return relationship directly, as the predicted equity risk premium is generated by predicting volatility or risk. The PRPM is not based on an estimate of investor behavior, but rather on an evaluation of the results of that behavior (*i.e.*, the variance of historical equity risk premiums).

The inputs to the model are the historical returns on the common shares of each Utility Proxy Group company minus the historical monthly yield on long-term U.S. Treasury securities through July 2020. Using a generalized form of ARCH, known as GARCH, I calculated each Utility Proxy Group company's projected equity risk premium using Eviews© statistical software. When the GARCH model is applied to the historical return data, it produces a predicted GARCH variance series[30]

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28 Pauline M. Ahern, Frank J. Hanley and Richard A. Michelfelder, Ph.D. *A New Approach for Estimating the Equity Risk Premium for Public Utilities*, The Journal of Regulatory Economics (December 2011). 40:261-278.

29 Autoregressive conditional heteroscedasticity; See also, www.nobelprize.org.

30 Illustrated on Columns 1 and 2, page 2 of Schedule DWD-4.

and a GARCH coefficient.[31] Multiplying the predicted monthly variance by the GARCH coefficient and then annualizing it[32] produces the predicted annual equity risk premium. I then added the forecasted 30-year U.S. Treasury bond yield of 2.09%[33] to each company's PRPM-derived equity risk premium to arrive at an indicated cost of common equity. The 30-year U.S. Treasury bond yield is a consensus forecast derived from *Blue Chip.*[34] The mean PRPM indicated common equity cost rate for the Utility Proxy Group is 10.33%, the median is 10.21%, and the average of the two is 10.27%. Consistent with my reliance on the average of the median and mean results of the DCF models, I relied on the average of the mean and median results of the Utility Proxy Group PRPM to calculate a cost of common equity rate of 10.27%.

Q. PLEASE EXPLAIN THE TOTAL MARKET APPROACH RPM.

A. The total market approach RPM adds a prospective public utility bond yield to an average of: 1) an equity risk premium that is derived from a Beta-adjusted total market equity risk premium, 2) an equity risk premium based on the S&P Utilities Index, and 3) an equity risk premium based on authorized ROEs for electric utilities.

Q. PLEASE EXPLAIN THE BASIS OF THE EXPECTED BOND YIELD OF 3.78% APPLICABLE TO THE UTILITY PROXY GROUP.

A. The first step in the total market approach RPM analysis is to determine the expected bond yield. Because both ratemaking and the cost of capital, including the common

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31 Illustrated on Column 4, page 2 of Schedule DWD-4.
32 Annualized Return = (1 + Monthly Return) ^12 - 1
33 *See*, Column 6, page 2 of Schedule DWD-4.
34 *See*, Blue Chip Financial Forecasts, June 1, 2020 at page 14 and July 31, 2020 at page 2.

equity cost rate, are prospective in nature, a prospective yield on similarly-rated long-term debt is essential. I relied on a consensus forecast of about 50 economists of the expected yield on Aaa-rated corporate bonds for the six calendar quarters ending with the fourth calendar quarter of 2021, and *Blue Chip's* long-term projections for 2022 to 2026, and 2027 to 2031. As shown on line 1, page 3 of Schedule DWD-4, the average expected yield on Moody's Aaa-rated corporate bonds is 3.03%. In order to adjust the expected Aaa-rated corporate bond yield to an equivalent A2-rated public utility bond yield, I made an upward adjustment of 0.61%, which represents a recent spread between Aaa-rated corporate bonds and A2-rated public utility bonds.[35] Adding that recent 0.61% spread to the expected Aaa-rated corporate bond yield of 3.03% results in an expected A2-rated public utility bond yield of 3.64%. Since the Utility Proxy Group's average Moody's long-term issuer rating is A3, another adjustment to the expected A2-rated public utility bond is needed to reflect the difference in bond ratings. An upward adjustment of 0.14%, which represents one-third of a recent spread between A2-rated and Baa2-rated public utility bond yields, is necessary to make the A2 prospective bond yield applicable to an A3-rated public utility bond.[36] Adding the 0.14% to the 3.64% prospective A2-rated public utility bond yield results in a 3.78% expected bond yield applicable to the Utility Proxy Group.

35 As shown on line 2 and explained in note 2, page 3 of Schedule DWD-4.
36 As shown on line 4 and explained in note 3, page 3 of Schedule DWD-4.

Table 5: Summary of the Calculation of the Utility Proxy Group Projected Bond Yield[37]

Prospective Yield on Moody's Aaa-Rated Corporate Bonds (*Blue Chip)*	3.03%
Adjustment to Reflect Yield Spread Between Moody's Aaa-Rated Corporate Bonds and Moody's A2-Rated Utility Bonds	0.61%
Adjustment to Reflect the Utility Proxy Group's Average Moody's Bond Rating of A3	0.14%
Prospective Bond Yield Applicable to the Utility Proxy Group	3.78%

Q. PLEASE EXPLAIN HOW THE BETA-DERIVED EQUITY RISK PREMIUM IS DETERMINED.

A. The components of the Beta-derived risk premium model are: 1) an expected market equity risk premium over corporate bonds, and 2) the Beta coefficient. The derivation of the Beta-derived equity risk premium that I applied to the Utility Proxy Group is shown on lines 1 through 9, on page 8 of Schedule DWD-4. The total Beta-derived equity risk premium I applied is based on an average of three historical market data-based equity risk premiums, two *Value Line*-based equity risk premiums, and a Bloomberg-based equity risk premium. Each of these is described below.

Q. HOW DID YOU DERIVE A MARKET EQUITY RISK PREMIUM BASED ON LONG-TERM HISTORICAL DATA?

A. To derive an historical market equity risk premium, I used the most recent holding period returns for the large company common stocks from the Stocks, Bonds, Bills, and Inflation ("SBBI") Yearbook 2020 ("SBBI - 2020")[38] less the average historical

37 As shown on page 3 of Schedule DWD-4.
38 *See*, SBBI-2020 Appendix A Tables: Morningstar Stocks, Bonds, Bills, & Inflation 1926-2019.

yield on Moody's Aaa/Aa-rated corporate bonds for the period 1928 to 2019. Using holding period returns over a very long time is appropriate because it is consistent with the long-term investment horizon presumed by investing in a going concern, *i.e.*, a company expected to operate in perpetuity.

SBBI's long-term arithmetic mean monthly total return rate on large company common stocks was 11.83% and the long-term arithmetic mean monthly yield on Moody's Aaa/Aa-rated corporate bonds was 6.05%.[39] As shown on line 1, page 8 of Schedule DWD-4, subtracting the mean monthly bond yield from the total return on large company stocks results in a long-term historical equity risk premium of 5.78%.

I used the arithmetic mean monthly total return rates for the large company stocks and yields (income returns) for the Moody's Aaa/Aa corporate bonds, because they are appropriate for the purpose of estimating the cost of capital as noted in SBBI - 2020.[40] Using the arithmetic mean return rates and yields is appropriate because historical total returns and equity risk premiums provide insight into the variance and standard deviation of returns needed by investors in estimating future risk when making a current investment. If investors relied on the geometric mean of historical equity risk premiums, they would have no insight into the potential variance of future returns, because the geometric mean relates the change over many periods to a constant rate of change, thereby obviating the year-to-year fluctuations, or variance, which is critical to risk analysis.

39 As explained in note 1, page 9 of Schedule DWD-4.
40 *See*, SBBI - 2020, at page 10-22.

Q. PLEASE EXPLAIN THE DERIVATION OF THE REGRESSION-BASED MARKET EQUITY RISK PREMIUM.

A. To derive the regression-based market equity risk premium of 9.34% shown on line 2, page 8 of Schedule DWD-4, I used the same monthly annualized total returns on large company common stocks relative to the monthly annualized yields on Moody's Aaa/Aa-rated corporate bonds as mentioned above. I modeled the relationship between interest rates and the market equity risk premium using the observed monthly market equity risk premium as the dependent variable, and the monthly yield on Moody's Aaa/Aa-rated corporate bonds as the independent variable. I then used a linear Ordinary Least Squares ("OLS") regression, in which the market equity risk premium is expressed as a function of the Moody's Aaa/Aa-rated corporate bonds yield:

$$RP = \alpha + \beta\ (R_{Aaa/Aa})$$

Q. PLEASE EXPLAIN THE DERIVATION OF THE PRPM EQUITY RISK PREMIUM.

A. I used the same PRPM approach described above to the PRPM equity risk premium. The inputs to the model are the historical monthly returns on large company common stocks minus the monthly yields on Moody's Aaa/Aa-rated corporate bonds during the period from January 1928 through July 2020.[41] Using the previously discussed generalized form of ARCH, known as GARCH, the projected equity risk premium is

41 Data from January 1926 to December 2019 is from SBBI - 2020. Data from January 2020 to July 2020 is from Bloomberg.

determined using Eviews© statistical software. The resulting PRPM predicted a market equity risk premium of 9.55%.[42]

Q. PLEASE EXPLAIN THE DERIVATION OF A PROJECTED EQUITY RISK PREMIUM BASED ON VALUE LINE DATA FOR YOUR RPM ANALYSIS.

A. As noted above, because both ratemaking and the cost of capital are prospective, a prospective market equity risk premium is needed. The derivation of the forecasted or prospective market equity risk premium can be found in note 4, page 8 of Schedule DWD-4. Consistent with my calculation of the dividend yield component in my DCF analysis, this prospective market equity risk premium is derived from an average of the three- to five-year median market price appreciation potential by *Value Line* for the 13 weeks ended July 31, 2020, plus an average of the median estimated dividend yield for the common stocks of the 1,700 firms covered in *Value Line* (Standard Edition).[43]

The average median expected price appreciation is 69%, which translates to a 14.02% annual appreciation, and when added to the average of *Value Line's* median expected dividend yields of 2.51%, equates to a forecasted annual total return rate on the market of 16.53%. The forecasted Moody's Aaa-rated corporate bond yield of 3.03% is deducted from the total market return of 16.53%, resulting in an equity risk premium of 13.50%, as shown on line 4, page 8 of Schedule DWD-4.

42 Shown on line 3, page 8 of Schedule DWD-4.
43 As explained in detail in note 1, page 2 of Schedule DWD-4.

Q. PLEASE EXPLAIN THE DERIVATION OF AN EQUITY RISK PREMIUM BASED ON THE S&P 500 COMPANIES.

A. Using data from *Value Line*, I calculated an expected total return on the S&P 500 companies using expected dividend yields and long-term growth estimates as a proxy for capital appreciation. The expected total return for the S&P 500 is 13.66%. Subtracting the prospective yield on Moody's Aaa-rated corporate bonds of 3.03% results in a 10.63% projected equity risk premium.

Q. PLEASE EXPLAIN THE DERIVATION OF AN EQUITY RISK PREMIUM BASED ON BLOOMBERG DATA.

A. Using data from Bloomberg, I calculated an expected total return on the S&P 500 using expected dividend yields and long-term growth estimates as a proxy for capital appreciation, identical to the method described above. The expected total return for the S&P 500 is 13.75%. Subtracting the prospective yield on Moody's Aaa-rated corporate bonds of 3.03% results in a 10.72% projected equity risk premium.

Q. WHAT IS YOUR CONCLUSION OF A BETA-DERIVED EQUITY RISK PREMIUM FOR USE IN YOUR RPM ANALYSIS?

A. I gave equal weight to all six equity risk premiums based on each source – historical, *Value Line*, and Bloomberg – in arriving at a 9.92% equity risk premium.

Table 6: Summary of the Calculation of the Equity Risk Premium using Total Market Returns[44]

Historical Spread Between Total Returns of Large Stocks and Aaa and Aa-Rated Corporate Bond Yields (1928 – 2019)	5.78%
Regression Analysis on Historical Data	9.34%
PRPM Analysis on Historical Data	9.55%
Prospective Equity Risk Premium using Total Market Returns from *Value Line* Summary & Index less Projected Aaa Corporate Bond Yields	13.50%
Prospective Equity Risk Premium using Measures of Capital Appreciation and Income Returns from *Value Line* for the S&P 500 less Projected Aaa Corporate Bond Yields	10.63%
Prospective Equity Risk Premium using Measures of Capital Appreciation and Income Returns from Bloomberg Professional Services for the S&P 500 less Projected Aaa Corporate Bond Yields	10.72%
Average	9.92%

After calculating the average market equity risk premium of 9.92%, I adjusted it by the Beta coefficient to account for the risk of the Utility Proxy Group. As discussed below, the Beta coefficient is a meaningful measure of prospective relative risk to the market as a whole, and is a logical way to allocate a company's, or proxy group's, share of the market's total equity risk premium relative to corporate bond yields. As shown on page 1 of Schedule DWD-5, the average of the mean and median Beta coefficient for the Utility Proxy Group is 0.95. Multiplying the 0.95 average Beta coefficient by the market equity risk premium of 9.92% results in a Beta-adjusted equity risk premium for the Utility Proxy Group of 9.42%.

44 As shown on page 8 of Schedule DWD-4.

Q. HOW DID YOU DERIVE THE EQUITY RISK PREMIUM BASED ON THE S&P UTILITY INDEX AND MOODY'S A-RATED PUBLIC UTILITY BONDS?

A. I estimated three equity risk premiums based on S&P Utility Index holding period returns, and two equity risk premiums based on the expected returns of the S&P Utilities Index, using *Value Line* and Bloomberg data, respectively. Turning first to the S&P Utility Index holding period returns, I derived a long-term monthly arithmetic mean equity risk premium between the S&P Utility Index total returns of 10.74% and monthly Moody's A-rated public utility bond yields of 6.53% from 1928 to 2019 to arrive at an equity risk premium of 4.21%.[45] I then used the same historical data to derive an equity risk premium of 6.76% based on a regression of the monthly equity risk premiums. The final S&P Utility Index holding period equity risk premium involved applying the PRPM using the historical monthly equity risk premiums from January 1928 to July 2020 to arrive at a PRPM-derived equity risk premium of 5.57% for the S&P Utility Index.

I then derived expected total returns on the S&P Utilities Index of 10.57% and 9.04% using data from *Value Line* and Bloomberg, respectively, and subtracted the prospective Moody's A2-rated public utility bond yield of 3.64%[46], which resulted in equity risk premiums of 6.93% and 5.40%, respectively. As with the market equity risk premiums, I averaged each risk premium based on each source (*i.e.*, historical, *Value Line*, and Bloomberg) to arrive at my utility-specific equity risk premium of 5.77%.

45 As shown on line 1, page 12 of Schedule DWD-4.
46 Derived on line 3, page 3 of Schedule DWD-4.

Table 7: Summary of the Calculation of the Equity Risk Premium using S&P Utility Index Holding Returns[47]

Historical Spread Between Total Returns of the S&P Utilities Index and A2-Rated Utility Bond Yields (1928 – 2019)	4.21%
Regression Analysis on Historical Data	6.76%
PRPM Analysis on Historical Data	5.57%
Prospective Equity Risk Premium using Measures of Capital Appreciation and Income Returns from *Value Line* for the S&P Utilities Index less Projected A2 Utility Bond Yields	6.93%
Prospective Equity Risk Premium using Measures of Capital Appreciation and Income Returns from Bloomberg Professional Services for the S&P Utilities Index less Projected A2 Utility Bond Yields	5.40%
Average	5.77%

Q. HOW DO YOU DERIVE AN EQUITY RISK PREMIUM OF 5.88% BASED ON AUTHORIZED ROES FOR ELECTRIC UTILITIES?

A. The equity risk premium of 5.88% shown on line 3, page 7 of Schedule DWD-4 is the result of a regression analysis based on regulatory awarded ROEs related to the yields on Moody's A2-rated public utility bonds. That analysis is shown on page 13 of Schedule DWD-4. Page 13 of Schedule DWD-4 contains the graphical results of a regression analysis of 1,167 rate cases for electric utilities which were fully litigated during the period from January 1, 1980 through July 31, 2019. It shows the implicit equity risk premium relative to the yields on A2-rated public utility bonds immediately prior to the issuance of each regulatory decision. It is readily discernible that there is an inverse relationship between the yield on A2-rated public utility bonds and equity risk premiums. In other words, as interest rates decline, the equity risk premium rises and vice versa, a result consistent with financial literature

47 As shown on page 12 of Schedule DWD-4.

on the subject.[48] I used the regression results to estimate the equity risk premium applicable to the projected yield on Moody's A2-rated public utility bonds. Given the expected A2-rated utility bond yield of 3.64%, it can be calculated that the indicated equity risk premium applicable to that bond yield is 5.88%, which is shown on line 3, page 7 of Schedule DWD-4.

Q. WHAT IS YOUR CONCLUSION OF AN EQUITY RISK PREMIUM FOR USE IN YOUR TOTAL MARKET APPROACH RPM ANALYSIS?

A. The equity risk premium I apply to the Utility Proxy Group is 7.02%, which is the average of the Beta-adjusted equity risk premium for the Utility Proxy Group, the S&P Utilities Index, and the authorized return utility equity risk premiums of 9.42%, 5.77%, and 5.88%, respectively.[49]

Q. WHAT IS THE INDICATED RPM COMMON EQUITY COST RATE BASED ON THE TOTAL MARKET APPROACH?

A. As shown on line 7, page 3 of Schedule DWD-4 and shown on Table 8, below, I calculated a common equity cost rate of 10.80% for the Utility Proxy Group based on the total market approach RPM.

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48 *See, e.g.*, Robert S. Harris and Felicia C. Marston, *The Market Risk Premium: Expectational Estimates Using Analysts' Forecasts*, Journal of Applied Finance, Vol. 11, No. 1, 2001, at 11-12; Eugene F. Brigham, Dilip K. Shome, and Steve R. Vinson, *The Risk Premium Approach to Measuring a Utility's Cost of Equity*, Financial Management, Spring 1985, at 33-45.

49 As shown on page 7 of Schedule DWD-4.

Table 8: Summary of the Total Market Return Risk Premium Model[50]

Prospective Moody's A3-Rated Utility Bond Applicable to the Utility Proxy Group	3.78%
Prospective Equity Risk Premium	7.02%
Indicated Cost of Common Equity	10.80%

Q. WHAT ARE THE RESULTS OF YOUR APPLICATION OF THE PRPM AND THE TOTAL MARKET APPROACH RPM?

A. As shown on page 1 of Schedule DWD-4, the indicated RPM-derived common equity cost rate is 10.54%, which gives equal weight to the PRPM (10.27%) and the adjusted-market approach results (10.80%).

C. The Capital Asset Pricing Model

Q. PLEASE EXPLAIN THE THEORETICAL BASIS OF THE CAPM.

A. CAPM theory defines risk as the co-variability of a security's returns with the market's returns as measured by the Beta coefficient (β). A Beta coefficient less than 1.0 indicates lower variability than the market as a whole, while a Beta coefficient greater than 1.0 indicates greater variability than the market.

The CAPM assumes that all non-market or unsystematic risk can be eliminated through diversification. The risk that cannot be eliminated through diversification is called market, or systematic, risk. In addition, the CAPM presumes that investors only require compensation for systematic risk, which is the result of macroeconomic and other events that affect the returns on all assets. The model is applied by adding a risk-free rate of return to a market risk premium, which is adjusted proportionately to reflect the systematic risk of the individual security

50 As shown on page 3 of Schedule DWD-4.

relative to the total market as measured by the Beta coefficient. The traditional CAPM model is expressed as:

$$R_s = R_f + \beta (R_m - R_f)$$

Where: R_s = Return rate on the common stock;

R_f = Risk-free rate of return;

R_m = Return rate on the market as a whole; and

β = Adjusted Beta coefficient (volatility of the security relative to the market as a whole)

Numerous tests of the CAPM have measured the extent to which security returns and Beta coefficients are related as predicted by the CAPM, confirming its validity. The empirical CAPM ("ECAPM") reflects the reality that while the results of these tests support the notion that the Beta coefficient is related to security returns, the empirical Security Market Line ("SML") described by the CAPM formula is not as steeply sloped as the predicted SML.[51]

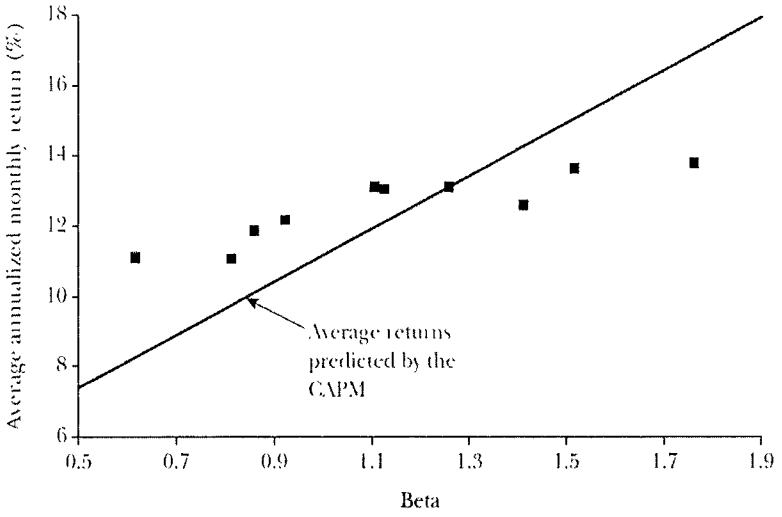
The ECAPM reflects this empirical reality. Fama and French clearly state regarding Figure 2, below, that "[t]he returns on the low beta portfolios are too high, and the returns on the high beta portfolios are too low."[52]

51 Roger A. Morin, New Regulatory Finance, , at page 175 ("Morin").

52 Eugene F. Fama and Kenneth R. French, *The Capital Asset Pricing Model Theory and Evidence*, Journal of Economic Perspectives, Vol. 18, No. 3, Summer 2004 at 33 ("Fama & French").

Figure 2 http://pubs.aeaweb.org/doi/pdfplus/10.1257/0895330042162430

Average Annualized Monthly Return versus Beta for Value Weight Portfolios Formed on Prior Beta, 1928–2003



In addition, Morin observes that while the results of these tests support the notion that Beta is related to security returns, the empirical SML described by the CAPM formula is not as steeply sloped as the predicted SML. Morin states:

> With few exceptions, the empirical studies agree that ... low-beta securities earn returns somewhat higher than the CAPM would predict, and high-beta securities earn less than predicted.[53]
>
> * * *
>
> Therefore, the empirical evidence suggests that the expected return on a security is related to its risk by the following approximation:
>
> $$K = R_F + x\,(R_M - R_F) + (1-x)\,\beta(R_M - R_F)$$
>
> where x is a fraction to be determined empirically. The value of x that best explains the observed relationship [is] Return = 0.0829 + 0.0520 β is between 0.25 and 0.30. If x = 0.25, the equation becomes:

53 Morin, at 175.

$$K = R_F + 0.25(R_M - R_F) + 0.75\ \beta(R_M - R_F)$$[54]

Fama and French provide similar support for the ECAPM when they state:

> The early tests firmly reject the Sharpe-Lintner version of the CAPM. There is a positive relation between beta and average return, but it is too 'flat.'... The regressions consistently find that the intercept is greater than the average risk-free rate... and the coefficient on beta is less than the average excess market return... This is true in the early tests... as well as in more recent cross-section regressions tests, like Fama and French (1992).[55]

Finally, Fama and French further note:

> Confirming earlier evidence, the relation between beta and average return for the ten portfolios is much flatter than the Sharpe-Linter CAPM predicts. The returns on low beta portfolios are too high, and the returns on the high beta portfolios are too low. For example, the predicted return on the portfolio with the lowest beta is 8.3 percent per year; the actual return as 11.1 percent. The predicted return on the portfolio with the t beta is 16.8 percent per year; the actual is 13.7 percent.[56]

Clearly, the justification from Morin, Fama, and French, along with their reviews of other academic research on the CAPM, validate the use of the ECAPM. In view of theory and practical research, I have applied both the traditional CAPM and the ECAPM to the companies in the Utility Proxy Group and averaged the results.

Q. WHAT BETA COEFFICIENTS DID YOU USE IN YOUR CAPM ANALYSIS?

A. For the Beta coefficients in my CAPM analysis, I considered two sources: *Value Line* and Bloomberg Professional Services. While both of those services adjust their calculated (or "raw") Beta coefficients to reflect the tendency of the Beta coefficient

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54 Morin, at 190.
55 Fama & French, at 32.
56 *Ibid.*, at 33.

to regress to the market mean of 1.00, *Value Line* calculates the Beta coefficient over a five-year period, while Bloomberg calculates it over a two-year period.

Q. PLEASE DESCRIBE YOUR SELECTION OF A RISK-FREE RATE OF RETURN.

A. As shown in Column 5, page 1 of Schedule DWD-5, the risk-free rate adopted for both applications of the CAPM is 2.09%. This risk-free rate is based on the average of the *Blue Chip* consensus forecast of the expected yields on 30-year U.S. Treasury bonds for the six quarters ending with the fourth calendar quarter of 2021, and long-term projections for the years 2022 to 2026 and 2027 to 2031.

Q. WHY IS THE YIELD ON LONG-TERM U.S. TREASURY BONDS APPROPRIATE FOR USE AS THE RISK-FREE RATE?

A. The yield on long-term U.S. Treasury bonds is almost risk-free and its term is consistent with the long-term cost of capital to public utilities measured by the yields on Moody's A-rated public utility bonds; the long-term investment horizon inherent in utilities' common stocks; and the long-term life of the jurisdictional rate base to which the allowed fair rate of return (*i.e.*, cost of capital) will be applied. In contrast, short-term U.S. Treasury yields are more volatile and largely a function of Federal Reserve monetary policy.

Q. PLEASE EXPLAIN THE ESTIMATION OF THE EXPECTED RISK PREMIUM FOR THE MARKET USED IN YOUR CAPM ANALYSES.

A. The basis of the market risk premium is explained in detail in note 1 on Schedule DWD-5. As discussed above, the market risk premium is derived from an average of

three historical data-based market risk premiums, two *Value Line* data-based market risk premiums, and one Bloomberg data-based market risk premium.

The long-term income return on U.S. Government securities of 5.09% was deducted from the SBBI - 2020 monthly historical total market return of 12.10%, which results in an historical market equity risk premium of 7.01%.[57] I applied a linear OLS regression to the monthly annualized historical returns on the S&P 500 relative to historical yields on long-term U.S. Government securities from SBBI - 2020. That regression analysis yielded a market equity risk premium of 10.20%. The PRPM market equity risk premium is 10.67%, and is derived using the PRPM relative to the yields on long-term U.S. Treasury securities from January 1926 through July 2020.

The *Value Line*-derived forecasted total market equity risk premium is derived by deducting the forecasted risk-free rate of 2.09%, discussed above, from the *Value Line* projected total annual market return of 16.53%, resulting in a forecasted total market equity risk premium of 14.44%. The S&P 500 projected market equity risk premium using *Value Line* data is derived by subtracting the projected risk-free rate of 2.09% from the projected total return of the S&P 500 of 13.66%. The resulting market equity risk premium is 11.57%.

The S&P 500 projected market equity risk premium using Bloomberg data is derived by subtracting the projected risk-free rate of 2.09% from the projected total return of the S&P 500 of 13.75%. The resulting market equity risk premium is 11.66%. These six measures, when averaged, result in an average total market equity

57 SBBI - 2020, at Appendix A-1 (1) through A-1 (3) and Appendix A-7 (19) through A-7 (21).

risk premium of 10.92%.

Table 9: Summary of the Calculation of the Market Risk Premium for use in the CAPM[58]

Historical Spread Between Total Returns of Large Stocks and Long-Term Government Bond Yields (1926 – 2019)	7.01%
Regression Analysis on Historical Data	10.20%
PRPM Analysis on Historical Data	10.67%
Prospective Equity Risk Premium using Total Market Returns from *Value Line* Summary & Index less Projected 30-Year Treasury Bond Yields	14.44%
Prospective Equity Risk Premium using Measures of Capital Appreciation and Income Returns from *Value Line* for the S&P 500 less Projected 30-Year Treasury Bond Yields	11.57%
Prospective Equity Risk Premium using Measures of Capital Appreciation and Income Returns from Bloomberg Professional Services for the S&P 500 less Projected 30-Year Treasury Bond Yields	11.66%
Average	10.92%

Q. WHAT ARE THE RESULTS OF YOUR APPLICATION OF THE TRADITIONAL AND EMPIRICAL CAPM TO THE UTILITY PROXY GROUP?

A. As shown on page 1 of Schedule DWD-5, the mean result of my CAPM/ECAPM analyses is 12.61%, the median is 12.30%, and the average of the two is 12.46%. Consistent with my reliance on the average of mean and median DCF results discussed above, the indicated common equity cost rate using the CAPM/ECAPM is 12.46%.

58 As shown on page 2 of Schedule DWD-5.

D. Common Equity Cost Rates for a Proxy Group of Domestic, Non-Price Regulated Companies Based on the DCF, RPM, and CAPM

Q. WHY DO YOU ALSO CONSIDER A PROXY GROUP OF DOMESTIC, NON-PRICE REGULATED COMPANIES?

A. In the *Hope* and *Bluefield* cases, the U.S. Supreme Court did not specify that comparable risk companies had to be utilities. Since the purpose of rate regulation is to be a substitute for marketplace competition, non-price regulated firms operating in the competitive marketplace make an excellent proxy if they are comparable in total risk to the Utility Proxy Group being used to estimate the cost of common equity. The selection of such domestic, non-price regulated competitive firms theoretically and empirically results in a proxy group which is comparable in total risk to the Utility Proxy Group, since all of these companies compete for capital in the exact same markets.

Q. HOW DID YOU SELECT NON-PRICE REGULATED COMPANIES THAT ARE COMPARABLE IN TOTAL RISK TO THE UTILITY PROXY GROUP?

A. In order to select a proxy group of domestic, non-price regulated companies similar in total risk to the Utility Proxy Group, I relied on the Beta coefficients and related statistics derived from *Value Line* regression analyses of weekly market prices over the most recent 260 weeks (*i.e.*, five years). These selection criteria resulted in a proxy group of 45 domestic, non-price regulated firms comparable in total risk to the Utility Proxy Group. Total risk is the sum of non-diversifiable market risk and diversifiable company-specific risks. The criteria used in selecting the domestic, non-price regulated firms was:

(i) They must be covered by *Value Line* (Standard Edition);

(ii) They must be domestic, non-price regulated companies, *i.e.*, not utilities;

(iii) Their Beta coefficients must lie within plus or minus two standard deviations of the average unadjusted Beta coefficients of the Utility Proxy Group; and

(iv) The residual standard errors of the *Value Line* regressions which gave rise to the unadjusted Beta coefficients must lie within plus or minus two standard deviations of the average residual standard error of the Utility Proxy Group.

Beta coefficients measure market, or systematic, risk, which is not diversifiable. The residual standard errors of the regressions measure each firm's company-specific, diversifiable risk. Companies that have similar Beta coefficients and similar residual standard errors resulting from the same regression analyses have similar total investment risk.

Q. HAVE YOU PREPARED A SCHEDULE WHICH SHOWS THE DATA FROM WHICH YOU SELECTED THE 45 DOMESTIC, NON-PRICE REGULATED COMPANIES THAT ARE COMPARABLE IN TOTAL RISK TO THE UTILITY PROXY GROUP?

A. Yes, the basis of my selection and both proxy groups' regression statistics are shown in Schedule DWD-6.

Q. DID YOU CALCULATE COMMON EQUITY COST RATES USING THE DCF MODEL, RPM, AND CAPM FOR THE NON-PRICE REGULATED PROXY GROUP?

A. Yes. Because the DCF model, RPM, and CAPM have been applied in an identical manner as described above, I will not repeat the details of the rationale and

application of each model. One exception is in the application of the RPM, where I did not use public utility-specific equity risk premiums, nor did I apply the PRPM to the individual non-price regulated companies.

Page 2 of Schedule DWD-7 derives the constant growth DCF model common equity cost rate. As shown, the indicated common equity cost rate, using the constant growth DCF for the Non-Price Regulated Proxy Group comparable in total risk to the Utility Proxy Group, is 11.50%.

Pages 3 through 5 of Schedule DWD-7 contain the data and calculations that support the 12.86% RPM common equity cost rate. As shown on line 1, page 3 of Schedule DWD-7, the consensus prospective yield on Moody's Baa-rated corporate bonds for the six quarters ending in the fourth quarter of 2021, and for the years 2022 to 2026 and 2027 to 2031, is 4.18%.[59] Since the Non-Price Regulated Proxy Group has an average Moody's long-term issuer rating of A3/Baa1, a downward adjustment of 0.35% to the projected Baa2-rated corporate bond yield is necessary to reflect the difference in ratings which results in a projected A3/Baa1-rated corporate bond yield of 3.83%.

When the Beta-adjusted risk premium of 9.03%[60] relative to the Non-Price Regulated Proxy Group is added to the prospective A3/Baa1-rated corporate bond yield of 3.83%, the indicated RPM common equity cost rate is 12.86%.

Page 6 of Schedule DWD-7 contains the inputs and calculations that support my indicated CAPM/ECAPM common equity cost rate of 12.09%.

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59 Blue Chip Financial Forecasts, June 1, 2020, at page 14 and July 31, 2020, at page 2.
60 Derived on page 5 of Schedule DWD-7.

Q. WHAT IS THE COST RATE OF COMMON EQUITY BASED ON THE NON-PRICE REGULATED PROXY GROUP COMPARABLE IN TOTAL RISK TO THE UTILITY PROXY GROUP?

A. As shown on page 1 of Schedule DWD-7, the results of the common equity models applied to the Non-Price Regulated Proxy Group – which group is comparable in total risk to the Utility Proxy Group – are as follows: 11.50% (DCF), 12.86% (RPM), and 12.09% (CAPM). The average of the mean and median of these models is 12.12%, which I used as the indicated common equity cost rates for the Non-Price Regulated Proxy Group.

VIII. CONCLUSION OF COMMON EQUITY COST RATE BEFORE ADJUSTMENTS

Q. WHAT IS THE INDICATED COMMON EQUITY COST RATE BEFORE ADJUSTMENTS?

A. By applying multiple cost of common equity models to the Utility Proxy Group and the Non-Price Regulated Proxy Group, the indicated range of common equity cost rates attributable to the Utility Proxy Group before any relative risk adjustments is between 9.85% and 10.96%. I used multiple cost of common equity models as primary tools in arriving at my recommended common equity cost rate, because no single model is so inherently precise that it can be relied on to the exclusion of other theoretically sound models. Using multiple models adds reliability to the estimated common equity cost rate, with the prudence of using multiple cost of common equity models supported in both the financial literature and regulatory precedent.

Based on these common equity cost rate results, I conclude that a range of common equity cost rates between 9.85% and 10.96% is reasonable and appropriate

before any adjustments for relative risk differences between SWEPCO and the Utility Proxy Group are made. The bottom of the indicated range (*i.e.,* 9.85%) was calculated by averaging the average of all model results (10.96%) with the lowest model result (8.73%), and the top of the indicated range is the approximate average of all model results. I have chosen this indicated range of common equity cost rates applicable to the Utility Proxy Group in order to be conservative in view of current market volatility and uncertainty as discussed previously.

IX. ADJUSTMENTS TO THE COMMON EQUITY COST RATE

A. Size Adjustment

Q. DOES SWEPCO'S SMALLER SIZE RELATIVE TO THE UTILITY PROXY GROUP COMPANIES INCREASE ITS BUSINESS RISK?

A. Yes. SWEPCO's smaller size relative to the Utility Proxy Group companies indicates greater relative business risk for the Company because, all else being equal, size has a material bearing on risk.

Size affects business risk because smaller companies generally are less able to cope with significant events that affect sales, revenues and earnings. For example, smaller companies face more risk exposure to business cycles and economic conditions, both nationally and locally. Additionally, the loss of revenues from a few larger customers would have a greater effect on a small company than on a bigger company with a larger, more diverse, customer base.

As further evidence that smaller firms are riskier, investors generally demand greater returns from smaller firms to compensate for less marketability and liquidity of their securities. Duff & Phelps' 2020 Valuation Handbook – U.S. Guide to Cost

of Capital ("D&P – 2020") discusses the nature of the small-size phenomenon, providing an indication of the magnitude of the size premium based on several measures of size. In discussing "Size as a Predictor of Equity Returns," D&P – 2020 states:

> The size effect is based on the empirical observation that companies of smaller size are associated with greater risk and, therefore, have greater cost of capital [sic]. The "size" of a company is one of the most important risk elements to consider when developing cost of equity capital estimates for use in valuing a business simply because size has been shown to be a *predictor* of equity returns. In other words, there is a significant (negative) relationship between size and historical equity returns - as size *decreases*, returns tend to *increase*, and vice versa. (footnote omitted) (emphasis in original)[61]

Furthermore, in "The Capital Asset Pricing Model: Theory and Evidence," Fama and French note size is indeed a risk factor which must be reflected when estimating the cost of common equity. On page 14, they note:

> . . . the higher average returns on small stocks and high book-to-market stocks reflect unidentified state variables that produce undiversifiable risks (covariances) in returns not captured in the market return and are priced separately from market betas.[62]

Based on this evidence, Fama and French proposed their three-factor model which includes a size variable in recognition of the effect size has on the cost of common equity.

Also, it is a basic financial principle that the use of funds invested, and not the source of funds, is what gives rise to the risk of any investment.[63] Eugene Brigham, a well-known authority, states:

> A number of researchers have observed that portfolios of small-firms

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61 Duff & Phelps Valuation Handbook – U.S. Guide to Cost of Capital, Wiley 2020, at 4-1.
62 Fama & French, at 25-43.
63 Brealey, Richard A. and Myers, Stewart C., Principles of Corporate Finance (McGraw-Hill Book Company, 1996), at 204-205, 229.

> (sic) have earned consistently higher average returns than those of large-firm stocks; this is called the "small-firm effect." On the surface, it would seem to be advantageous to the small firms to provide average returns in a stock market that are higher than those of larger firms. In reality, it is bad news for the small firm; **what the small-firm effect means is that the capital market demands higher returns on stocks of small firms than on otherwise similar stocks of the large firms**. (emphasis added)[64]

Consistent with the financial principle of risk and return discussed above, increased relative risk due to small size must be considered in the allowed rate of return on common equity. Therefore, the Commission's authorization of a cost rate of common equity in this proceeding must appropriately reflect the unique risks of SWEPCO, including its small relative size, which is justified and supported above by evidence in the financial literature.

Q. IS THERE A WAY TO QUANTIFY A RELATIVE RISK ADJUSTMENT DUE TO SWEPCO'S SMALL SIZE WHEN COMPARED TO THE UTILITY PROXY GROUP?

A. Yes. SWEPCO has greater relative risk than the average utility in the Utility Proxy Group because of its smaller size, as measured by an estimated market capitalization of common equity for SWEPCO.

64 Brigham, Eugene F., Fundamentals of Financial Management, Fifth Edition (The Dryden Press, 1989), at 623.

Table 10: Size as Measured by Market Capitalization for SWEPCO's Electric Operations and the Utility Proxy Group

	Market Capitalization* ($ Millions)	Times Greater than The Company
SWEPCO	$1,709	
Utility Proxy Group	$14,860	8.7x
*From page 1 of Schedule DWD-8.		

SWEPCO's estimated market capitalization was $1,709 million as of July 31, 2020, compared with the market capitalization of the average company in the Utility Proxy Group of $14,860 million as of July 31, 2020. The average company in the Utility Proxy Group has a market capitalization 8.7 times the size of SWEPCO's estimated market capitalization.

As a result, it is necessary to upwardly adjust the indicated range of common equity cost rates attributable to the Utility Proxy Group to reflect SWEPCO's greater risk due to their smaller relative size. The determination is based on the size premiums for portfolios of New York Stock Exchange, American Stock Exchange, and NASDAQ listed companies ranked by deciles for the 1926 to 2019 period. The average size premium for the Utility Proxy Group with a market capitalization of $14,860 million falls in the second decile, while the Company's estimated market capitalization of $1,709 million places it in the sixth decile. The size premium spread between the second decile and the sixth decile is 0.84%. Even though an 0.84% upward size adjustment is indicated, I applied a size premium of 0.20% to the Company's indicated common equity cost rate.

Q. SINCE SWEPCO IS PART OF A LARGER COMPANY, WHY IS THE SIZE OF THE TOTAL COMPANY NOT MORE APPROPRIATE TO USE WHEN DETERMINING THE SIZE ADJUSTMENT?

A. The return derived in this proceeding will not apply to AEP's operations as a whole, but only SWEPCO's. AEP is the sum of its constituent parts, including those constituent parts' ROEs. Potential investors in the Parent are aware that it is a combination of operations in each state, and that each state's operations experience the operating risks specific to their jurisdiction. The market's expectation of AEP's return is commensurate with the realities of the Company's composite operations in each of the states in which it operates.

B. Credit Risk Adjustment

Q. PLEASE DISCUSS YOUR PROPOSED CREDIT RISK ADJUSTMENT.

A. SWEPCO's long-term issuer ratings are Baa2 and A- from Moody's Investors Services and S&P, respectively, compared to the average long-term issuer ratings for the Utility Proxy Group of A3 and BBB+, respectively.[65] Hence, an upward credit risk adjustment is necessary to reflect the lower credit rating, *i.e.,* Baa2, of SWEPCO relative to the A3 average Moody's bond rating of the Utility Proxy Group.[66]

An indication of the magnitude of the necessary upward adjustment to reflect the greater credit risk inherent in a Baa2 bond rating relative to the Utility Proxy Group average rating of A3 is two-thirds of a recent three-month average spread between Moody's A2 and Baa2-rated public utility bond yields of 0.41%, shown on

65 Source: S&P Global Market Intelligence.
66 As shown on page 5 of Schedule DWD-4.

page 4 of Schedule DWD-4, or 0.27%.[67]

C. Flotation Costs

Q. DID YOU PERFORM ANY ANALYSES RELATED TO FLOTATION COSTS IN ESTIMATING THE COMPANY'S ROE?

A. No, I did not. While flotation costs are necessary expenses associated with obtaining the capital used to finance utility assets (and, therefore, should be considered in determining the ROE), I recognize that the Commission typically has not included flotation costs in arriving at its ROE determinations. Consequently, I have not performed any analyses regarding flotation costs in this proceeding.

Q. WHAT IS THE INDICATED COST OF COMMON EQUITY AFTER YOUR COMPANY-SPECIFIC ADJUSTMENTS?

A. Applying the 0.20% size adjustment and the 0.27% credit risk adjustment, to the indicated range of common equity cost rates between 9.85% and 10.96% results in a Company-specific range of common equity rates between 10.32% and 11.43%. In consideration of both of these indicated ranges, I recommend an ROE of 10.35% for SWEPCO in this proceeding.

X. CONCLUSION

Q. WHAT IS YOUR RECOMMENDED ROE FOR SWEPCO?

A. Given the discussion above and the results from the analyses, I recommend that an ROE of 10.35% is appropriate for the Company at this time.

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67 0.27% = 0.41% * (2/3).

Q. IN YOUR OPINION, IS YOUR PROPOSED ROE OF 10.35% FAIR AND REASONABLE TO SWEPCO AND ITS CUSTOMERS?

A. Yes, it is.

Q. IN YOUR OPINION, IS SWEPCO'S PROPOSED CAPITAL STRUCTURE CONSISTING OF 50.63% LONG-TERM DEBT AND 49.37% COMMON EQUITY FAIR AND REASONABLE?

A. Yes, it is.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

Southwestern Electric Power Company
Table of Contents
Supporting Schedules Accompanying the Direct Testimony of
Dylan W. D'Ascendis, CRRA, CVA

Southwestern Electric Power Company
Recommended Capital Structure and Cost Rates
for Ratemaking Purposes

Type Of Capital	Ratios (1)	Cost Rate		Weighted Cost Rate
Long-Term Debt	50.63%	4.18%	(1)	2.11%
Common Equity	49.37%	10.35%	(2)	5.11%
Total	100.00%			7.22%

Notes:

(1) Company-Provided
(2) From page 2 of this Schedule.

Southwestern Electric Power Company
Brief Summary of Common Equity Cost Rate

Line No.	Principal Methods	Proxy Group of Fourteen Electric Companies
1.	Discounted Cash Flow Model (DCF) (1)	8.73%
2.	Risk Premium Model (RPM) (2)	10.54%
3.	Capital Asset Pricing Model (CAPM) (3)	12.46%
4.	Market Models Applied to Comparable Risk, Non-Price Regulated Companies (4)	12.12%
5.	Indicated Range of Common Equity Cost Rates before Adjustment for Company-Specific Risk	9.85% - 10.96%
6.	Size Risk Adjustment (5)	0.20%
7.	Credit Risk Adjustment (6)	0.27%
8.	Indicated Range of Common Equity Cost Rates after Adjustment	10.32% - 11.43%
9.	Recommended Common Equity Cost Rate	10.35%

Notes:
(1) From Schedule DWD-3.
(2) From page 1 of Schedule DWD-4.
(3) From page 1 of Schedule DWD-5.
(4) From page 1 of Schedule DWD-7.
(5) Adjustment to reflect the Company's greater business risk due to its smaller size realtive to the Utility Proxy Group as detailed in Mr. D'Ascendis' direct testimony.
(6) Company-specific risk adjustment to reflect SWEPCO's greater credit risk compared to the Utility Proxy Group. SWEPCO's Moody's bond rating of Baa2 is riskier than the Utility Proxy Group's Moody's bond rating of A3. An upward adjustment of 2/3 of the spread between A2 and Baa2 public utility bond yields (as shown on page 4 of Schedule DWD-4) is appropriate.

Southwestern Electric Power Company
CAPITALIZATION AND FINANCIAL STATISTICS (1)
2015 - 2019, Inclusive

	2019	2018	2017	2016	2015	5 YEAR AVERAGE
			(MILLIONS OF DOLLARS)			
CAPITALIZATION STATISTICS						
AMOUNT OF CAPITAL EMPLOYED						
TOTAL PERMANENT CAPITAL	$ 5,000 942	$ 4,928 897	$ 4,605 707	$ 4,820 200	$ 4,374 666	
SHORT-TERM DEBT	59 860	-	118 680	-	58 330	
TOTAL-CAPITAL EMPLOYED	$ 5,060 802	$ 4,928 897	$ 4,724 387	$ 4,820 200	$ 4,432 996	
INDICATED AVERAGE CAPITAL COST RATES (2)						
TOTAL DEBT	4 11 %	4 51 %	4 49 %	4 91 %	5 49 %	
CAPITAL STRUCTURE RATIOS						
BASED ON TOTAL PERMANENT CAPITAL						
LONG-TERM DEBT	51 20 %	53 03 %	51 48 %	54 05 %	50 41 %	52 03 %
PREFERRED STOCK	-	-	-	-	-	-
COMMON EQUITY	48 80	46 97	48 52	45 95	49 59	47 97
TOTAL	100 00 %	100 00 %	100 00 %	100 00 %	100 00 %	100 00 %
BASED ON TOTAL CAPITAL						
TOTAL DEBT, INCLUDING SHORT-TERM	51 78 %	53 03 %	52 70 %	54 05 %	51 07 %	52 53 %
PREFERRED STOCK	-	-	-	-	-	-
COMMON EQUITY	48 22	46 97	47 30	45 95	48 93	47 47
TOTAL	100 00 %	100 00 %	100 00 %	100 00 %	100 00 %	100 00 %
DIVIDEND PAYOUT RATIO	23 64 %	44 15 %	88 22 %	72 48 %	62 39 %	58 18 %
RATE OF RETURN ON AVERAGE BOOK COMMON EQUITY	6 67 %	6 47 %	5 60 %	7 55 %	9 02 %	7 06 %
TOTAL DEBT / EBITDA (3)	5 09 x	4 98 x	4 83 x	4 96 x	3 92 x	4 76 x
FUNDS FROM OPERATIONS / TOTAL DEBT (4)	11 49 %	19 40 %	17 85 %	12 01 %	17 16 %	15 58 %
TOTAL DEBT / TOTAL CAPITAL	51 78 %	53 03 %	52 70 %	54 05 %	51 07 %	52 53 %

Notes
(1) All capitalization and financial statistics for the group are the arithmetic average of the achieved results for each individual
(2) Computed by relating actual total debt interest or preferred stock dividends booked to average of beginning and ending total
(3) Total debt relative to EBITDA (Earnings before Interest, Income Taxes, Depreciation and Amortization)
(4) Funds from operations (sum of net income, depreciation, amortization, net deferred income tax and investment tax credits, less

Source of Information Company audited financial statements

Proxy Group of Fourteen Electric Companies
CAPITALIZATION AND FINANCIAL STATISTICS (1)
2015 - 2019, Inclusive

	2019	2018	2017	2016	2015	
			(MILLIONS OF DOLLARS)			
CAPITALIZATION STATISTICS						
AMOUNT OF CAPITAL EMPLOYED						
TOTAL PERMANENT CAPITAL	$19,269 964	$17,567.886	$16,616 842	$15,844 640	$14,799 184	
SHORT-TERM DEBT	$530 136	$605 674	$625 260	$462 079	$479 850	
TOTAL CAPITAL EMPLOYED	$19,800 100	$18,173 560	$17,242 102	$16,306 719	$15,279.034	
INDICATED AVERAGE CAPITAL COST RATES (2)						
TOTAL DEBT	4 43 %	4 63 %	4 63 %	4 85 %	4 65 %	
PREFERRED STOCK	5.44	5 22	5 28	5.42	5.39	
CAPITAL STRUCTURE RATIOS						5 YEAR AVERAGE
BASED ON TOTAL PERMANENT CAPITAL:						
LONG-TERM DEBT	52 11 %	51.53 %	50.40 %	50.28 %	49.69 %	50 80 %
PREFERRED STOCK	0.72	0.85	0 90	0 94	0.96	0 87
COMMON EQUITY	47 17	47 62	48 70	48 78	49 35	48 33
TOTAL	100 00 %	100 00 %	100 00 %	100 00 %	100 00 %	100 00 %
BASED ON TOTAL CAPITAL						
TOTAL DEBT, INCLUDING SHORT-TERM	52 86 %	52 49 %	52 25 %	51 75 %	50.98 %	52 07 %
PREFERRED STOCK	0.70	0 83	0 84	0 90	0 94	0 84
COMMON EQUITY	46 44	46 68	46.91	47.36	48 08	47 09
TOTAL	100 00 %	100 00 %	100.00 %	100.00 %	100.00 %	100 00 %
FINANCIAL STATISTICS						
FINANCIAL RATIOS - MARKET BASED						
EARNINGS / PRICE RATIO	4 86 %	4 94 %	4 60 %	4 58 %	4 70 %	4 73 %
MARKET / AVERAGE BOOK RATIO	206 49	197.18	204 94	167.90	161.63	187.63
DIVIDEND YIELD	3 14	3 46	3 23	3 49	3 61	3 39
DIVIDEND PAYOUT RATIO	66 12	48 51	76 76	53 36	59 95	60.94
RATE OF RETURN ON AVERAGE BOOK COMMON EQUITY	9 85 %	8.58 %	8.82 %	7 97 %	7.77 %	8 60 %
TOTAL DEBT / EBITDA (3)	4.50 x	4 97 x	4 03 x	5.27 x	4 33 x	4 62 x
FUNDS FROM OPERATIONS / TOTAL DEBT (4)	15 07 %	20 23 %	19.99 %	18 97 %	23 09 %	19 47 %
TOTAL DEBT / TOTAL CAPITAL	52 86 %	52 49 %	52 25 %	51 75 %	50 98 %	52 07 %

Notes.

(1) All capitalization and financial statistics for the group are the arithmetic average of the achieved results for each individual company in the group, and are based upon financial statements as originally reported in each year.

(2) Computed by relating actual total debt interest or preferred stock dividends booked to average of beginning and ending total debt or preferred stock reported to be outstanding

(3) Total debt relative to EBITDA (Earnings before Interest, Income Taxes, Depreciation and Amortization)

(4) Funds from operations (sum of net income, depreciation, amortization, net deferred income tax and investment tax credits, less total AFUDC) plus interest charges as a percentage of total debt.

Source of Information Company Annual Forms 10-K

Capital Structure Based upon Total Permanent Capital for the
Proxy Group of Fourteen Electric Companies
2015 - 2019, Inclusive

	2019	2018	2017	2016	2015	5 YEAR AVERAGE
ALLETE						
Long-Term Debt	41.96 %	40.80 %	42.09 %	45.15 %	46.86 %	43.37 %
Preferred Stock	-	-	-	-	-	0.00
Common Equity	58.04	59 20	57 91	54 85	53.14	56.63
Total Capital	100.00 %	100 00 %	100.00 %	100.00 %	100.00 %	100.00 %
Alliant Energy						
Long-Term Debt	53.39 %	53.49 %	52.62 %	50 34 %	49.43 %	51.85 %
Preferred Stock	1.72	1 94	2 16	2 33	2.58	2 15
Common Equity	44 89	44.57	45.22	47.33	47.99	46.00
Total Capital	100.00 %	100 00 %	100.00 %	100.00 %	100.00 %	100.00 %
Ameren Corp.						
Long-Term Debt	53.29 %	52.05 %	51 52 %	50 11 %	50 65 %	51 52 %
Preferred Stock	0.81	0.88	0.92	0.98	0.99	0.92
Common Equity	45.90	47.07	47 56	48.91	48.36	47.56
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100 00 %	100 00 %
Duke Energy						
Long-Term Debt	55 39 %	55.45 %	55.61 %	53.85 %	49 87 %	54 03 %
Preferred Stock	-	-	-	-	-	0.00
Common Equity	44.61	44.55	44.39	46.15	50.13	45.97
Total Capital	100.00 %	100.00 %	100.00 %	100 00 %	100 00 %	100 00 %
Edison Int'l						
Long-Term Debt	54 21 %	53.76 %	46.65 %	44.02 %	45.68 %	48.86 %
Preferred Stock	6 48	8.02	8.44	8 65	8 20	7.96
Common Equity	39.31	38.22	44.91	47 33	46.12	43.18
Total Capital	100.00 %	100 00 %	100.00 %	100.00 %	100.00 %	100.00 %
Entergy Corp.						
Long-Term Debt	63.12 %	64.08 %	64 80 %	64.16 %	58 19 %	62.87 %
Preferred Stock	0 78	0.87	0.85	0.88	1 39	0 95
Common Equity	36.10	35 05	34 35	34.96	40.42	36.18
Total Capital	100.00 %	100 00 %	100.00 %	100.00 %	100.00 %	100.00 %
IDACORP, Inc.						
Long-Term Debt	42.70 %	43 63 %	43 68 %	44.77 %	45 62 %	44.08 %
Preferred Stock	-	-	-	-	-	0 00
Common Equity	57 30	56 37	56.32	55.23	54.38	55.92
Total Capital	100 00 %	100.00 %	100.00 %	100.00 %	100 00 %	100.00 %
NorthWestern Corp.						
Long-Term Debt	52.27 %	51 98 %	50.26 %	52 05 %	53.08 %	51.93 %
Preferred Stock	-	-	-	-	-	0.00
Common Equity	47.73	48.02	49.74	47.95	46 92	48.07
Total Capital	100 00 %	100.00 %	100 00 %	100 00 %	100 00 %	100 00 %

Capital Structure Based upon Total Permanent Capital for the
Proxy Group of Fourteen Electric Companies
2015 - 2019, Inclusive

	2019	2018	2017	2016	2015	5 YEAR AVERAGE
OGE Energy						
Long-Term Debt	43 56 %	44.00 %	43.78 %	43 31 %	45 31 %	43.99 %
Preferred Stock	-	-	-	-	-	0.00
Common Equity	56.44	56 00	56.22	56 69	54.69	56.01
Total Capital	100.00 %	100 00 %	100.00 %	100.00 %	100.00 %	100.00 %
Otter Tail Corp						
Long-Term Debt	46 88 %	44.74 %	41 31 %	44.56 %	45.17 %	44.53 %
Preferred Stock	-	-	-	-	-	0.00
Common Equity	53.12	55.26	58 69	55.44	54.83	55.47
Total Capital	100 00 %	100.00 %	100 00 %	100.00 %	100.00 %	100.00 %
Pinnacle West Capital						
Long-Term Debt	50.91 %	49 59 %	48.68 %	46.33 %	45.45 %	48.19 %
Preferred Stock	-	-	-	-	-	0.00
Common Equity	49.09	50.41	51.32	53 67	54.55	51.81
Total Capital	100 00 %	100 00 %	100.00 %	100.00 %	100.00 %	100.00 %
PNM Resources						
Long-Term Debt	64.02 %	61.10 %	57.89 %	58 64 %	55.66 %	59.46 %
Preferred Stock	0.25	0.26	0 28	0.28	0 31	0 28
Common Equity	35 73	38 64	41.83	41.08	44.03	40.26
Total Capital	100.00 %	100.00 %	100 00 %	100 00 %	100 00 %	100.00 %
Portland General						
Long-Term Debt	50 06 %	49.72 %	50 10 %	50.06 %	49.39 %	49.87 %
Preferred Stock	-	-	-	-	-	0.00
Common Equity	49.94	50 28	49.90	49.94	50.61	50.13
Total Capital	100 00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Xcel Energy Inc						
Long-Term Debt	57.77 %	57.01 %	56.66 %	56.73 %	55.36 %	56.71 %
Preferred Stock	-	-	-	-	-	0 00
Common Equity	42 23	42.99	43 34	43.27	44.64	43.29
Total Capital	100.00 %	100.00 %	100 00 %	100.00 %	100.00 %	100.00 %
Proxy Group of Fourteen Electric Companies						
Long-Term Debt	52.11 %	51.52 %	50.41 %	50.29 %	49.70 %	50.80 %
Preferred Stock	0.72	0.86	0 90	0.94	0 96	0 88
Common Equity	47 17	47.62	48.69	48.77	49.34	48.32
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %

Source of Information
Annual Forms 10-K

Southwestern Eletric Power Company
Operating Subsidiary Company Capital Structures of the
Proxy Group of Sixteen Electric Companies

Company Name	Parent Company Ticker	2019 Common Equity	2019 Long-Term Debt	2019 Total Capital
ALLETE (Minnesota Power)	ALE	59.59%	40.41%	100.00%
Superior Water, Light and Power Company	ALE	58.08%	41 92%	100.00%
Interstate Power and Light Company	LNT	50.23%	49.77%	100 00%
Wisconsin Power and Light Company	LNT	53.78%	46.22%	100.00%
Ameren Illinois Company	AEE	53.00%	47 00%	100.00%
Union Electric Company	AEE	51.90%	48.10%	100.00%
Duke Energy Carolinas, LLC	DUK	52.11%	47.89%	100.00%
Duke Energy Florida, LLC	DUK	49.91%	50 09%	100.00%
Duke Energy Indiana, LLC	DUK	52 84%	47.16%	100.00%
Duke Energy Kentucky, Inc.	DUK	49.37%	50.63%	100.00%
Duke Energy Ohio, Inc.	DUK	65.22%	34 78%	100.00%
Duke Energy Progress, LLC	DUK	51.29%	48.71%	100.00%
Southern California Edison Company	EIX	50.43%	49.57%	100 00%
Entergy Arkansas, LLC	ETR	47.90%	52.10%	100.00%
Entergy Louisiana, LLC	ETR	47.47%	52.53%	100.00%
Entergy Mississippi, LLC	ETR	48 60%	51.40%	100.00%
Entergy New Orleans, LLC	ETR	49.26%	50.74%	100.00%
Entergy Texas, Inc.	ETR	50.43%	49.57%	100.00%
Idaho Power Company	IDA	55 14%	44.86%	100.00%
NorthWestern Corporation	NWE	47.59%	52 41%	100.00%
Oklahoma Gas and Electric Company	OGE	55.15%	44.85%	100.00%
Otter Tail Power Company	OTTR	51.12%	48.88%	100.00%
Public Service Company of New Mexico	PNM	45.23%	54.77%	100.00%
Texas-New Mexico Power Company	PNM	52.74%	47.26%	100.00%
Arizona Public Service Company	PNW	52 80%	47.20%	100.00%
Portland General Electric Company	POR	49 85%	50.15%	100.00%
Northern States Power Company - MN	XEL	52.20%	47.80%	100.00%
Northern States Power Company - WI	XEL	54 23%	45.77%	100.00%
Public Service Company of Colorado	XEL	56.32%	43.68%	100.00%
Southwestern Public Service Company	XEL	54.14%	45.86%	100.00%
	Mean	52 26%	47.74%	100.00%
	Median	52.00%	48.00%	100.00%

Source: S&P Global Market Intelligence

Southwestern Electric Power Company
Indicated Common Equity Cost Rate Using the Discounted Cash Flow Model for the
Proxy Group of Fourteen Electric Companies

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Proxy Group of Fourteen Electric Companies	Average Dividend Yield (1)	Value Line Projected Five Year Growth in EPS (2)	Zack's Five Year Projected Growth Rate in EPS	Bloomberg's Five Year Projected Growth Rate in EPS	Yahoo! Finance Projected Five Year Growth in EPS	Average Projected Five Year Growth in EPS (3)	Adjusted Dividend Yield (4)	Indicated Common Equity Cost Rate (5)
ALLETE	4.34 %	5.50 %	NA %	6.40 %	7.00 %	6.30 %	4.48 %	10.78 %
Alliant Energy	3.09	6.50	5.50	5.46	5.30	5.69	3.18	8.87
Ameren Corp	2.69	6.00	6.80	7.03	5.85	6.42	2.78	9.20
Duke Energy	4.62	5.00	4.30	4.02	3.81	4.28	4.72	9.00
Edison Int'l	4.49	NMF	3.30	4.26	1.40	2.99	4.56	7.55
Entergy Corp	3.78	3.00	5.70	5.06	5.95	4.93	3.87	8.80
IDACORP, Inc	2.98	3.50	2.60	3.00	2.60	2.93	3.02	5.95
NorthWestern Corp	4.27	1.50	3.40	3.80	3.71	3.10	4.34	7.44
OGE Energy	4.94	3.00	3.70	3.59	2.40	3.17	5.02	8.19
Otter Tail Corp	3.71	3.50	NA	NA	9.00	6.25	3.83	10.08
Pinnacle West Capital	4.08	4.00	4.70	4.78	4.36	4.46	4.17	8.63
PNM Resources	3.11	6.00	6.20	5.76	5.60	5.89	3.20	9.09
Portland General	3.73	4.00	5.30	4.72	4.45	4.62	3.82	8.44
Xcel Energy Inc	2.69	6.00	6.10	6.04	6.10	6.06	2.77	8.83
							Average	8.63 %
							Median	8.82 %
							Average of Mean and Median	8.73 %

NA= Not Available
NMF= Not Meaningful Figure

Notes

(1) Indicated dividend at 07/31/2020 divided by the average closing price of the last 60 trading days ending 07/31/2020 for each company

(2) From pages 2 through 15 of this Schedule

(3) Average of columns 2 through 5 excluding negative growth rates

(4) This reflects a growth rate component equal to one-half the conclusion of growth rate (from column 6) x column 1 to reflect the periodic payment of dividends (Gordon Model) as opposed to the continuous payment Thus, for ALLETE, 4.34% x (1+(1/2 x 6.30%)) = 4.48%

(5) Column 6 + column 7

Source of Information

Value Line Investment Survey
www.zacks.com Downloaded on 07/31/2020
www.yahoo.com Downloaded on 07/31/2020
Bloomberg Professional Services

ALLETE NYSE-ALE

RECENT PRICE 59.20 | P/E RATIO 19.4 (Trailing: 17.2 Median: 18.0) | RELATIVE P/E RATIO 0.98 | DIV'D YLD 4.3% | VALUE LINE

TIMELINESS 3 Lowered 4/5/19
SAFETY 2 New 10/1/04
TECHNICAL 3 Raised 5/1/20
BETA .85 (1.00 = Market)

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$49-$106	$78 (30%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	90	(+50%)	14%
Low	65	(+10%)	7%

Institutional Decisions

	3Q2019	4Q2019	1Q2020
to Buy	125	158	124
to Sell	142	120	154
Hld's(000)	38347	38235	38410

	35.3	37.9	42.5	42.7	54.1	58.0	59.7	66.9	81.2	82.8	88.6	84.7
High	23.3	30.0	35.1	37.7	41.4	44.2	45.3	48.3	61.6	66.6	72.5	48.2
Low												

LEGENDS
0.73 x Dividends p sh divided by Interest Rate
Relative Price Strength
Options Yes
Shaded area indicates recession

Target Price Range 2023 2024 2025: 120, 100, 80, 64, 48, 32, 24, 20, 16, 12, 8

% TOT RETURN 5/20

	THIS STOCK	VL ARITH* INDEX
1 yr	-26.4	-1.3
3 yr	-12.9	5.2
5 yr	36.5	18.7

Percent shares traded: 15, 10, 5

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	© VALUE LINE PUB. LLC	23-25
25.30	24.50	25.23	27.33	24.57	21.57	25.34	24.75	24.40	24.60	24.77	30.27	27.01	27.78	29.10	23.99	*22.00*	*23.25*	Revenues per sh	*25.75*
2.97	3.85	4.14	4.42	4.23	3.57	4.35	4.91	5.01	5.35	5.68	6.79	7.08	6.59	7.37	7.24	*7.05*	*7.65*	"Cash Flow" per sh	*9.00*
1.35	2.48	2.77	3.08	2.82	1.89	2.19	2.65	2.58	2.63	2.90	3.38	3.14	3.13	3.38	3.33	*3.05*	*3.50*	Earnings per sh [A]	*4.25*
.30	1.25	1.45	1.64	1.72	1.76	1.76	1.78	1.84	1.90	1.96	2.02	2.08	2.14	2.24	2.35	*2.47*	*2.58*	Div'd Decl'd per sh [B] ■ †	*2.90*
2.12	1.95	3.37	6.82	9.24	9.05	6.95	6.38	10.30	7.93	12.48	5.84	5.35	4.08	6.07	11.55	*14.80*	*11.20*	Cap'l Spending per sh	*3.25*
21.23	20.03	21.90	24.11	25.37	26.41	27.26	28.78	30.48	32.44	35.06	37.07	38.17	40.47	41.86	43.17	*46.30*	*47.65*	Book Value per sh [C]	*51.75*
29.70	30.10	30.40	30.80	32.60	35.20	35.80	37.50	39.40	41.40	45.90	49.10	49.60	51.10	51.50	51.70	*52.75*	*53.50*	Common Shs Outst'g [D]	*54.25*
25.2	17.9	16.5	14.8	13.9	16.1	16.0	14.7	15.9	18.6	17.2	15.1	18.6	23.0	22.2	24.7	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*18.5*
1.33	.95	.89	.79	.84	1.07	1.02	.92	1.01	1.05	.91	.76	.98	1.16	1.20	1.32			Relative P/E Ratio	*1.05*
9%	2.8%	3.2%	3.6%	4.4%	5.8%	5.0%	4.6%	4.5%	3.9%	3.9%	4.0%	3.6%	3.0%	3.0%	2.9%			Avg Ann'l Div'd Yield	*3.8%*
						907.0	928.2	961.2	1018.4	1136.8	1486.4	1339.7	1419.3	1498.6	1240.5	*1160*	*1245*	Revenues ($mill)	*1450*
						75.3	93.8	97.1	104.7	124.8	163.4	155.3	159.2	174.1	172.4	*160*	*185*	Net Profit ($mill)	*230*
						37.2%	27.6%	28.1%	21.5%	22.6%	19.4%	11.3%	14.8%	14.8%	NMF	*NMF*	*Nil*	Income Tax Rate	*Nil*
						8.9%	2.7%	5.3%	4.4%	6.3%	2.0%	1.4%	8%	7%	1.3%	*2.0%*	*2.0%*	AFUDC % to Net Profit	*1.0%*
						44.2%	44.3%	43.7%	44.6%	44.2%	46.3%	42.0%	41.0%	39.9%	38.6%	*41.0%*	*40.0%*	Long-Term Debt Ratio	*41.0%*
						55.8%	55.7%	56.3%	55.4%	55.8%	53.7%	58.0%	59.0%	60.1%	61.4%	*59.0%*	*60.0%*	Common Equity Ratio	*59.0%*
						1747.6	1937.2	2134.6	2425.9	2882.2	3388.9	3263.4	3507.4	3584.3	3632.8	*4140*	*4250*	Total Capital ($mill)	*4750*
						1805.6	1982.7	2347.6	2576.5	3286.4	3669.1	3741.2	3822.4	3904.4	4377.0	*4945*	*5320*	Net Plant ($mill)	*5575*
						5.4%	6.0%	5.6%	5.3%	5.2%	5.8%	5.8%	5.5%	5.8%	5.6%	*4.5%*	*5.0%*	Return on Total Cap'l	*5.5%*
						7.7%	8.7%	8.1%	7.8%	7.8%	9.0%	8.2%	7.7%	8.1%	7.7%	*6.5%*	*7.5%*	Return on Shr. Equity	*8.0%*
						7.7%	8.7%	8.1%	7.8%	7.8%	9.0%	8.2%	7.7%	8.1%	7.7%	*6.5%*	*7.5%*	Return on Com Equity [E]	*8.0%*
						1.5%	2.9%	2.3%	2.2%	2.5%	3.6%	2.8%	2.4%	2.7%	2.3%	*1.5%*	*2.0%*	Retained to Com Eq	*2.5%*
						81%	66%	71%	72%	67%	60%	66%	68%	66%	70%	*81%*	*74%*	All Div'ds to Net Prof	*69%*

CAPITAL STRUCTURE as of 3/31/20
Total Debt $1722.9 mill **Due in 5 Yrs** $562.6 mill
LT Debt $1399.9 mill **LT Interest** $61.1 mill
(LT interest earned 3.6x)

Leases, Uncapitalized Annual rentals $6.6 mill

Pension Assets-12/19 $699.6 mill
Oblig $854.0 mill

Pfd Stock None

Common Stock 51,787,412 shs

MARKET CAP. $3.1 billion (Mid Cap)

ELECTRIC OPERATING STATISTICS

	2017	2018	2019
% Change Retail Sales (KWH)	+8.4	-.2	-1.5
Avg Indust Use (MWH)	NA	NA	NA
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Winter (Mw)	1599	1589	1573
Annual Load Factor (%)	NA	NA	NA
% Change Customers (avg.)	NA	NA	NA
Fixed Charge Cov. (%)	339	296	277

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '17-'19 to '23-'25
Revenues	1.0%	2.0%	*-1.0%*
"Cash Flow"	5.5%	6.0%	*4.0%*
Earnings	2.5%	4.0%	*5.5%*
Dividends	3.0%	3.5%	*4.5%*
Book Value	5.0%	5.0%	*3.5%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2017	365.6	353.3	362.5	337.9	1419.3
2018	358.2	344.1	348.0	448.3	1498.6
2019	357.2	290.4	288.3	304.6	1240.5
2020	311.6	*280*	*280*	*288.4*	*1160*
2021	*330*	*300*	*300*	*315*	*1245*

EARNINGS PER SHARE [A]

Calendar	Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2017	.97	.72	.88	.56	3.13
2018	.99	.61	.59	1.18	3.38
2019	1.18	.64	.60	.92	3.33
2020	1.28	*.50*	*.52*	*.75*	*3.05*
2021	*1.20*	*.70*	*.65*	*.95*	*3.50*

QUARTERLY DIVIDENDS PAID [B] ■ †

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	.52	.52	.52	.52	2.08
2017	.535	.535	.535	.535	2.14
2018	.56	.56	.56	.56	2.24
2019	.5875	.5875	.5875	.5875	2.35
2020	.6175	.6175			

BUSINESS: ALLETE, Inc. is the parent of Minnesota Power, which supplies electricity to 146,000 customers in northeastern MN, & Superior Water, Light & Power in northwestern WI. Electric rev. breakdown: taconite mining/processing, 26%, paper/wood products, 9%, other industrial, 8%, residential, 12%, commercial, 13%, wholesale, 16% other, 16%. ALLETE Clean Energy (ACE) owns renewable energy projects. Acq'd U.S. Water Services 2/15, sold it 3/19. Generating sources: coal & lignite, 30%, wind, 11%, other, 5%, purchased, 54%. Fuel costs: 31% of revs. '19 deprec. rate: 3.3%. Has 1,400 employees. Chairman: Alan R. Hodnik. President & CEO: Bethany M. Owen. Inc.: MN. Address: 30 West Superior St., Duluth, MN 55802-2093. Tel.: 218-279-5000. Internet: www.allete.com.

ALLETE's main utility subsidiary had its interim rate increase reduced. Last November, Minnesota Power filed for a $65.9 million (10.6%) rate increase, based on a return on equity of 10.05% and a common-equity ratio of 53.81%. At the start of 2020, Minnesota Power received an interim hike of $36.1 million (5.8%). The interim hike was reduced to $25.5 million (4.1%), and the effective date postponed to May 1st, in response to the economic problems caused by the coronavirus situation. This will result in a $12 million revenue refund to customers. The utility also withdrew its rate application and will not refile a case before November 1, 2021. It may file as early as March 1st under certain conditions, such as a 50-megawatt loss of load for three months.

We lowered our 2020 and 2021 earnings estimates. The revenue refund will result in a charge of $0.16 a share against second-quarter results, and having a lower interim rate hike will affect the company's earning power until Minnesota Power files its next rate case. In addition, revenues from large industrial customers will probably be lower in the last four months of 2020. (For now, there is no revenue impact because these customers put forth full power-demand nominations, before the economy worsened, through the end of August.) Putting it all together, we cut our 2020 share-net estimate by $0.50, to $3.05, and our 2021 expectation by $0.30, to $3.50. Due to the problems and increased uncertainty caused by the coronavirus, ALLETE has withdrawn its earnings guidance. Management hopes to update guidance with its second-quarter release.

ALLETE Clean Energy is faring well. Its wind projects are on track, and the coronavirus has not disrupted construction. Most significantly, a 300-megawatt project is scheduled for completion by yearend at an expected cost of $450 million.

This has been one of the poorest-performing stocks in this industry in 2020. The price is down 27% in this time frame. Minnesota Power's service area has a much-larger industrial sector than most utilities, which worries investors. The dividend yield is above the industry average, and total return potential for the 18-month period is strong.

Paul E. Debbas, CFA *June 12, 2020*

(A) Diluted EPS. Excl. nonrec. gains (losses) '04, (25¢), '05, ($1.84), '15, (46¢), '17, 25¢, '19, 26¢; gain (losses) on disc. ops. '04, $2.57, '05, (16¢), '06, (2¢). '18 & '19 EPS don't sum due to rounding. Next earnings report due early Aug. (B) Div'ds historically paid in early Mar., June, Sept. and Dec. ■ Div'd reinvest. plan avail. † Shareholder invest. plan avail. (C) Incl. deferred charges. In '19: $8.15/sh. (D) In mill. (E) Rate base: Orig. cost. Depr. Rate allowed in MN on com. eq. in '18: 9.25%; earned on avg. com. eq., '19: 7.9%. Regulatory Climate: Avg.

Company's Financial Strength	A
Stock's Price Stability	95
Price Growth Persistence	60
Earnings Predictability	80

ALLIANT ENERGY NDQ-LNT

RECENT PRICE 49.46 | P/E RATIO 20.2 (Trailing: 19.6 Median: 17.0) | RELATIVE P/E RATIO 1.03 | DIV'D YLD 3.1% | VALUE LINE

TIMELINESS 2 Lowered 5/29/20
SAFETY 2 Raised 9/28/07
TECHNICAL 2 Lowered 6/12/20
BETA .80 (1.00 = Market)

18-Month Target Price Range

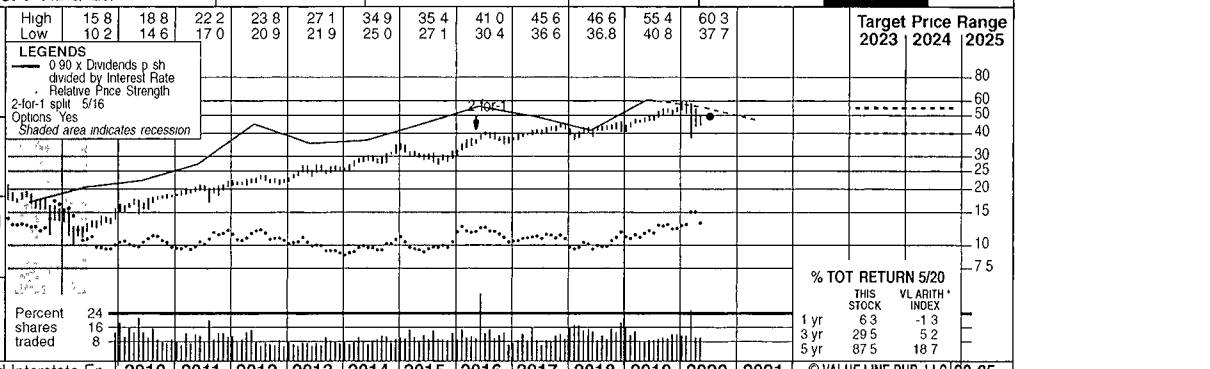
Low-High	Midpoint (% to Mid)
$38-$83	$61 (20%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	55	(+10%)	6%
Low	40	(-20%)	-1%

Institutional Decisions

	3Q2019	4Q2019	1Q2020
to Buy	248	272	236
to Sell	233	209	272
Hld's(000)	185069	188011	182284



Alliant Energy, formerly called Interstate Energy Corporation, was formed on April 21, 1998 through the merger of WPL Holdings, IES Industries, and Interstate Power. WPL stockholders received one share of Interstate Energy stock for each WPL share, IES stockholders received 1.14 Interstate Energy shares for each IES share, and Interstate Power stockholders received 1.11 Interstate Energy shares for each Interstate Power share.

CAPITAL STRUCTURE as of 3/31/20
Total Debt $6461.6 mill **Due in 5 Yrs** $1000.0 mill
LT Debt $5833.9 mill **LT Interest** $250.0 mill
(LT interest earned 3.1x)

Pension Assets-12/19 $930.4 mill **Oblig** $1279.7 mill
Pfd Stock $400.0 mill **Pfd Div'd** $10.2 mill
16,000,000 shs

Common Stock 249,503,754 shs

MARKET CAP. $12.3 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2017	2018	2019
% Change Retail Sales (KWH)	-1.0	+2.0	-2.2
Avg. Indust. Use (MWH)	11769	11830	11448
Avg. Indust. Revs. per KWH (¢)	7.16	7.25	6.98
Capacity at Peak (Mw)	5375	5459	5626
Peak Load, Summer (Mw)	5375	5459	5626
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+.4	+.4	+.6
Fixed Charge Cov. (%)	319	322	324

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '17-'19 to '23-'25
Revenues	-.5%	-.5%	*2.0%*
"Cash Flow"	4.5%	3.5%	*6.0%*
Earnings	5.0%	5.0%	*6.5%*
Dividends	7.0%	7.0%	*5.5%*
Book Value	4.0%	5.0%	*7.5%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	853.9	765.3	906.9	856.1	3382.2
2018	916.3	816.1	928.6	873.5	3534.5
2019	987.2	790.2	990.2	880.1	3647.7
2020	915.7	*840*	*1020*	*899.3*	*3675*
2021	*1040*	*860*	*1040*	*910*	*3850*

EARNINGS PER SHARE A

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.44	.41	.73	.41	1.99
2018	.52	.43	.87	.37	2.19
2019	.53	.40	.94	.46	2.33
2020	.72	*.43*	*.90*	*.40*	*2.45*
2021	*.60*	*.50*	*1.00*	*.45*	*2.55*

QUARTERLY DIVIDENDS PAID B ■†

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	.295	.295	.295	.295	1.18
2017	.315	.315	.315	.315	1.26
2018	.335	.335	.335	.335	1.34
2019	.355	.355	.355	.355	1.42
2020	.38	.38			

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	© VALUE LINE PUB. LLC	23-25
	15.40	16.51	13.94	14.77	15.10	14.34	14.58	14.62	14.97	14.89	*14.70*	*15.10*	Revenues per sh	*15.85*
	2.60	2.75	2.95	3.34	3.44	3.45	3.45	3.10	4.32	4.59	*4.75*	*4.90*	"Cash Flow" per sh	*5.25*
	1.38	1.38	1.53	1.65	1.74	1.69	1.65	1.99	2.19	2.33	*2.45*	*2.55*	Earnings per sh A	*3.00*
	.79	.85	.90	.94	1.02	1.10	1.18	1.26	1.34	1.42	*1.52*	*1.64*	Div'd Decl'd per sh B ■†	*2.00*
	3.91	3.03	5.22	3.32	3.78	4.25	5.26	6.34	6.34	6.28	*5.65*	*5.90*	Cap'l Spending per sh	*6.15*
	13.05	13.57	14.12	14.79	15.54	16.41	16.96	17.21	19.43	21.24	*22.75*	*24.10*	Book Value per sh C	*28.25*
	221.79	222.04	221.97	221.89	221.87	226.92	227.67	231.35	236.06	245.02	*250.00*	*255.00*	Common Shs Outst'g D	*265.00*
	12.5	14.5	14.5	15.3	16.6	18.1	22.3	20.6	19.1	21.2	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*16.0*
	.80	.91	.92	.86	.87	.91	1.17	1.04	1.03	1.19			Relative P/E Ratio	*.90*
	4.6%	4.3%	4.1%	3.7%	3.5%	3.6%	3.2%	3.1%	3.2%	2.9%			Avg Ann'l Div'd Yield	*4.2%*
	3416.1	3665.3	3094.5	3276.8	3350.3	3253.6	3320.0	3382.2	3534.5	3647.7	*3675*	*3850*	Revenues ($mill)	*4205*
	303.9	304.4	337.8	382.1	385.5	380.7	373.8	455.9	512.1	557.2	*610*	*630*	Net Profit ($mill)	*790*
	30.1%	19.0%	21.5%	12.4%	10.1%	15.3%	13.4%	12.5%	8.4%	10.8%	*NMF*	*11.0%*	Income Tax Rate	*11.0%*
	--	--	--	--	--	6.5%	7.0%	7.6%	7.8%	7.6%	*7.5%*	*7.5%*	AFUDC % to Net Profit	*7.5%*
	46.3%	45.7%	48.4%	46.1%	49.7%	48.6%	52.8%	49.0%	53.4%	51.5%	*52.0%*	*52.0%*	Long-Term Debt Ratio	*52.0%*
	49.5%	50.9%	48.4%	50.8%	47.5%	51.4%	47.2%	48.6%	46.6%	48.5%	*48.0%*	*48.0%*	Common Equity Ratio	*48.0%*
	5840.8	5921.2	6476.6	6461.0	7257.2	7246.3	8177.6	8192.8	9832.0	10226	*10000*	*10500*	Total Capital ($mill)	*12000*
	6730.6	7037.1	7838.0	7147.3	6442.0	8970.2	9809.9	10798	12031	13527	*14000*	*15000*	Net Plant ($mill)	*18000*
	6.6%	6.4%	6.3%	7.0%	6.3%	6.3%	5.6%	6.8%	6.3%	4.1%	*4.0%*	*6.0%*	Return on Total Cap'l	*6.5%*
	9.7%	9.5%	10.1%	11.0%	10.6%	10.2%	9.7%	10.9%	11.2%	10.7%	*10.5%*	*10.0%*	Return on Shr. Equity	*10.5%*
	9.9%	9.5%	10.3%	11.3%	10.9%	10.2%	9.7%	6.4%	11.2%	10.7%	*10.5%*	*10.0%*	Return on Com Equity E	*10.5%*
	3.8%	3.3%	3.9%	4.9%	4.3%	3.6%	2.8%	4.0%	4.4%	4.2%	*4.0%*	*3.5%*	Retained to Com Eq	*3.5%*
	64%	67%	64%	57%	61%	65%	71%	63%	61%	61%	*62%*	*64%*	All Div'ds to Net Prof	*67%*

BUSINESS: Alliant Energy Corp., formerly named Interstate Energy, is a holding company formed through the merger of WPL Holdings, IES Industries, and Interstate Power. Supplies electricity, gas, and other services in Wisconsin, Iowa, and Minnesota. Elect. revs. by state: WI, 42%; IA, 57%; MN, 1%. Elect. rev.: residential, 34%; commercial, 29%; industrial, 28%; wholesale, 7%; other, 2%. Fuel sources, 2019: coal, 27%; gas, 34%; other, 39%. Fuel costs 41% of revs. 2019 depreciation rate: 5.9%. Estimated plant age: 17 years. Has approximately 3,597 employees. Chairman & Chief Executive Officer: John O. Larsen. Incorporated: Wisconsin. Address: 4902 N. Biltmore Lane, Madison, Wisconsin 53718. Telephone: 608-458-3311. Internet: www.alliantenergy.com.

We look for modest earnings increases at Alliant Energy in 2020 and 2021. The utility's largest subsidiary, Interstate Power and Light, is receiving rate relief through an order from the Iowa Utilities Board. The company's rates were increased by $127 million and $12 million for electricity and gas, respectively, at the beginning of 2020. Alliant is also benefiting from customer growth, lower fuel expenditures, cost savings, and tax credits tied to its renewable energy portfolio. Our 2020 share-net estimate, now at $2.45—up a nickel since our March review—represents growth of 5% over 2019's tally.

The COVID-19 outbreak has affected Alliant. The utility saw a 9% drop in retail power sales during the month of April, due to declines in the commercial and industrial sector, partially offset by an increase in residential activity. Although leadership kept its 2020 EPS guidance range untouched at $2.34-$2.48, it did say the pandemic has increased earnings risk through higher operating expenses and elevated macroeconomic uncertainty. The company has responded to this by deferring some capital expenditures and accelerating planned cost-saving initiatives.

Alliant has taken several steps to improve its liquidity situation. During the first quarter, it refinanced a $300 million term loan and issued $350 million in 30-year debentures for its Wisconsin Utility. Both deals were well received by the market at favorable interest rates. In addition, the company generated $222 million from common equity issuance, in line with prior projections, and reiterated its plan to move forward with a $300 million debt issuance for its Iowa utility subsidiary. At the end of March, total available liquidity, including borrowing capacity under its existing credit revolver, stood at $1.2 billion.

This stock is now ranked 2 (Above Average) for year-ahead relative price performance, having slipped a notch on our Timeliness scale since March. Like many utility issues, the recent quotation is well within our 2023-2025 Target Price Range, resulting in unexciting total return potential over that time frame. In addition, at 3.1%, the dividend yield doesn't stand out for a utility, further reducing the equity's investment appeal.

Daniel Henigson, CFA *June 12, 2020*

(A) Diluted EPS. Excl. nonrecur. gains (losses) '10, (8¢), '11, (1¢), '12, (8¢). Next earnings rpt due early August. (B) Dividends historically paid in mid-Feb., May, Aug., and Nov. ■ Div'd reinvest. plan avail. † Shareholder invest. plan avail. (C) Incl. deferred chgs. In '19: $72.0 mill., $0.29/sh. (D) In millions, adjusted for split. (E) Rate base: Orig. cost. Rates all'd on com. eq. in IA in '19: 10.0%, in WI in '19: Regul. Clim. WI, Above Avg.; IA, Avg.

Company's Financial Strength	A
Stock's Price Stability	95
Price Growth Persistence	80
Earnings Predictability	90

AMEREN NYSE-AEE

RECENT PRICE 74.37 | P/E RATIO 21.6 (Trailing: 23.5) (Median: 17.0) | RELATIVE P/E RATIO 1.10 | DIV'D YLD 2.8% | VALUE LINE

TIMELINESS 3 Lowered 3/29/19
SAFETY 2 Raised 6/20/14
TECHNICAL 1 Raised 5/8/20
BETA .80 (1.00 = Market)

18-Month Target Price Range
Low-High Midpoint (% to Mid)
$56-$117 $87 (15%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	80	(+10%)	5%
Low	60	(-20%)	-1%

Institutional Decisions

	3Q2019	4Q2019	1Q2020
to Buy	257	266	242
to Sell	257	265	273
Hld's(000)	186859	186367	187833

High	35.3	29.9	34.1	35.3	37.3	48.1	46.8	54.1	64.9	70.9	80.9	87.7
Low	19.5	23.1	25.5	28.4	30.6	35.2	37.3	41.5	51.4	51.9	63.1	58.7

LEGENDS
0.64 x Dividends p sh divided by Interest Rate
Relative Price Strength
Options Yes
Shaded area indicates recession

Target Price Range 2023 2024 2025
128
96
80
64
48
40
32
24
16
12

% TOT. RETURN 5/20

	THIS STOCK	VL ARITH.* INDEX
1 yr	4.5	-1.3
3 yr	43.3	5.2
5 yr	117.7	18.7

Percent shares traded 30 20 10

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	© VALUE LINE PUB. LLC	23-25
26.43	33.12	33.30	36.23	36.92	29.87	31.77	31.04	28.14	24.06	24.95	25.13	25.04	25.46	25.73	24.00	*22.05*	*22.70*	Revenues per sh	*24.25*
5.57	6.10	6.02	6.76	6.44	6.06	6.33	5.87	5.87	5.25	5.77	6.08	6.59	6.80	7.64	7.83	*8.05*	*8.50*	"Cash Flow" per sh	*10.00*
2.82	3.13	2.66	2.98	2.88	2.78	2.77	2.47	2.41	2.10	2.40	2.38	2.68	2.77	3.32	3.35	*3.45*	*3.65*	Earnings per sh [A]	*4.50*
2.54	2.54	2.54	2.54	2.54	1.54	1.54	1.56	1.60	1.60	1.61	1.66	1.72	1.78	1.85	1.92	*2.01*	*2.11*	Div'd Decl'd per sh [B] ■	*2.45*
4.13	4.63	4.99	6.96	9.75	7.51	4.66	4.50	5.49	5.87	7.66	8.12	8.78	9.05	9.56	9.92	*15.85*	*11.55*	Cap'l Spending per sh	*11.00*
29.71	31.09	31.86	32.41	32.80	33.08	32.15	32.64	27.27	26.97	27.67	28.63	29.27	29.61	31.21	32.73	*35.70*	*37.40*	Book Value per sh [C]	*43.50*
195.20	204.70	206.60	208.30	212.30	237.40	240.40	242.60	242.63	242.63	242.63	242.63	242.63	242.63	244.50	246.20	*254.00*	*260.00*	Common Shs Outst'g [D]	*275.00*
16.3	16.7	19.4	17.4	14.2	9.3	9.7	11.9	13.4	16.5	16.7	17.5	18.3	20.6	18.3	22.1	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*15.5*
.86	.89	1.05	.92	.85	.62	.62	.75	.85	.93	.88	.88	.96	1.04	.99	1.18			Relative P/E Ratio	*.85*
5.5%	4.9%	4.9%	4.9%	6.2%	6.0%	5.8%	5.3%	5.0%	4.6%	4.0%	4.0%	3.5%	3.1%	3.0%	2.6%			Avg Ann'l Div'd Yield	*3.5%*
7638.0	7531.0	6828.0	5838.0	6053.0	6098.0	6076.0	6177.0	6291.0	5910.0	*5600*	*5900*	Revenues ($mill)	*6700*
669.0	602.0	589.0	518.0	593.0	585.0	659.0	683.0	821.0	834.0	*875*	*950*	Net Profit ($mill)	*1230*
36.8%	37.3%	36.9%	37.5%	38.9%	38.3%	36.7%	38.2%	22.4%	17.9%	*12.5%*	*12.5%*	Income Tax Rate	*12.5%*
7.8%	5.6%	6.1%	7.1%	5.7%	5.1%	4.1%	5.6%	6.9%	5.8%	*6.0%*	*5.0%*	AFUDC % to Net Profit	*4.0%*
48.2%	45.3%	49.5%	45.2%	47.2%	49.3%	47.7%	49.2%	50.3%	52.1%	*54.0%*	*51.0%*	Long-Term Debt Ratio	*49.5%*
50.9%	53.7%	49.4%	53.7%	51.7%	49.7%	51.3%	49.8%	48.8%	47.1%	*45.5%*	*48.5%*	Common Equity Ratio	*50.0%*
15185	14738	13384	12190	12975	13968	13840	14420	15632	17116	*20000*	*20150*	Total Capital ($mill)	*23900*
17853	18127	16096	16205	17424	18799	20113	21466	22810	24376	*27225*	*28950*	Net Plant ($mill)	*33600*
6.0%	5.6%	6.0%	5.6%	5.8%	5.3%	6.0%	6.0%	6.4%	6.0%	*5.5%*	*6.0%*	Return on Total Cap'l	*6.5%*
8.5%	7.5%	8.7%	7.7%	8.7%	8.3%	9.1%	9.3%	10.6%	10.2%	*9.5%*	*9.5%*	Return on Shr. Equity	*10.0%*
8.6%	7.5%	8.8%	7.8%	8.7%	8.3%	9.2%	9.4%	10.7%	10.3%	*9.5%*	*9.5%*	Return on Com Equity [E]	*10.0%*
3.8%	2.8%	3.0%	1.9%	2.9%	2.5%	3.3%	3.4%	4.8%	4.4%	*4.0%*	*4.0%*	Retained to Com Eq	*4.5%*
56%	63%	66%	76%	67%	70%	64%	64%	56%	57%	*58%*	*58%*	All Div'ds to Net Prof	*55%*

CAPITAL STRUCTURE as of 3/31/20
Total Debt $10350 mill Due in 5 Yrs $2660 mill
LT Debt $9378 mill LT Interest $428 mill
(LT interest earned 3.4x)
Leases, Uncapitalized Annual rentals $8 mill
Pension Assets-12/19 $4564 mill
Oblig $4967 mill
Pfd Stock $142 mill Pfd Div'd $6 mill
807,595 sh $3.50 to $5.50 cum (no par), $100 stated val., redeem $102.176-$110/sh., 616,323 sh 4.00% to 6.625%, $100 par, redeem $100-$104/sh.
Common Stock 246,891,031 shs as of 4/30/20
MARKET CAP. $18 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2017	2018	2019
% Change Retail Sales (KWH)	-3.4	+5.6	-3.5
Avg Indust Use (MWH)	NA	NA	NA
Avg Indust Revs per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	NA	NA	NA
Fixed Charge Cov. (%)	350	313	307

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '17-'19 to '23-'25
Revenues	-3.0%	-.5%	*-.5%*
"Cash Flow"	1.5%	5.5%	*5.0%*
Earnings	1.0%	6.5%	*6.0%*
Dividends	-2.0%	3.0%	*5.0%*
Book Value	-.5%	2.5%	*5.5%*

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	1514	1538	1723	1402	6177.0
2018	1585	1563	1724	1419	6291.0
2019	1556	1379	1659	1316	5910.0
2020	1440	*1300*	*1600*	*1260*	*5600*
2021	*1600*	*1350*	*1650*	*1300*	*5900*

Calendar	EARNINGS PER SHARE [A] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.42	.79	1.18	.39	2.77
2018	.62	.97	1.45	.28	3.32
2019	.78	.72	1.47	.38	3.35
2020	.59	*.80*	*1.61*	*.45*	*3.45*
2021	*.65*	*.85*	*1.70*	*.45*	*3.65*

Calendar	QUARTERLY DIVIDENDS PAID [B] ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	.425	.425	.425	.44	1.72
2017	.44	.44	.44	.4575	1.78
2018	.4575	.4575	.4575	.475	1.85
2019	.475	.475	.475	.495	1.92
2020	.495	.495			

BUSINESS: Ameren Corporation is a holding company formed through the merger of Union Electric and CIPSCO. Has 1.2 million electric and 127,000 gas customers in Missouri, 1.2 million electric and 813,000 gas customers in Illinois. Discontinued nonregulated power-generation operation in '13. Electric revenue breakdown residential, 43%, commercial, 32%, industrial, 8%, other, 17%. Generating sources coal, 63%, nuclear, 23%; hydro & other, 6%; purchased, 8%. Fuel costs 24% of revenues. '19 reported deprec rates 3%-4%. Has 9,300 employees. Chairman, President & CEO Warner L. Baxter, Inc. Missouri Address: One Ameren Plaza, 1901 Chouteau Ave., P.O. Box 66149, St. Louis, Missouri 63166-6149. Tel. 314-621-3222. Internet: www.ameren.com

We cut our 2020 and 2021 earnings estimates for Ameren. The company's electric business in Missouri is being hurt by kilowatt-hour sales reductions resulting from the weak economy. Ameren's electric operations in Illinois have had a cut in the allowed return on equity, which tracks the 30-year U.S. Treasury bond rate. At least Ameren Illinois isn't being hurt by a decline in sales because it operates under a regulatory mechanism that decouples volume and revenues. Moreover, the company's transmission business does not depend on retail sales. We lowered our 2020 earnings estimate by $0.05 a share, to $3.45. This is still within the company's guidance of $3.40-$3.60, which management did not change upon releasing March-quarter results. Because any growth in 2021 will come off a lower base, we cut our estimate by $0.10 a share, to $3.65. The 6% increase we estimate for next year is within Ameren's target of 6%-8% for annual profit growth.

Ameren's electric rates were reduced in Missouri, but this wasn't a bad outcome for the utility. The commission cut Ameren's rates by $32 million, effective April 1, 2020. But this included the pass-through to customers of some $115 million of lower fuel costs and $50 million of decreased nonfuel expenses. This was a "black box" order in which an allowed ROE and common-equity ratio were not specified, but the decision was based on an implicit ROE in a range of 9.4%-9.8%.

A gas rate application is pending in Illinois. Ameren filed for $102 million, including $46 million that would otherwise be recovered through riders (surcharges) on customers' bills. The utility requested a 10.5% ROE and a 54.1% common-equity ratio. A ruling is due by January, with new tariffs taking effect in February.

Ameren is adding wind projects. The company is spending $1.2 billion to add 700 megawatts of capacity. Most, if not all, of this should be in service by yearend.

The stock has outperformed most utility equities in 2020. Its price has fallen just 3%. The dividend yield is almost one percentage point below the industry average. Total return potential is average for the next 18 months, but not for the 2023-2025 period.

Paul E. Debbas, CFA *June 12, 2020*

(A) Dil EPS. Excl nonrec gain (losses) '05, (11¢), '10, ($2.19), '11, (32¢), '12, ($6.42), '17, (63¢); gain (loss) from disc ops '13, (92¢), '15, 21¢. '17 EPS don't sum due to rounding. Next egs. report due early Aug. (B) Div'ds pd late Mar., June, Sept., & Dec. ■ Div'd reinv plan avail. (C) Incl intang. In '19: $5.70/sh. (D) In mill. (E) Rate base: Orig. cost; depr: Rate all'd on com. eq. in MO in '20: elec., none, in '11; gas, none, in IL in '14: elec., 8.7%, in '18; gas, 9.87%, earned on avg. com. eq., '19: 10.5%; Reg. Climate: MO, Avg., IL, Below Avg.

Company's Financial Strength	A
Stock's Price Stability	95
Price Growth Persistence	80
Earnings Predictability	85

DUKE ENERGY NYSE-DUK

RECENT PRICE 82.63 | P/E RATIO 16.2 (Trailing: 16.3 Median: 18.0) | RELATIVE P/E RATIO 0.98 | DIV'D YLD 4.6% | VALUE LINE

TIMELINESS 3 Lowered 3/13/20
SAFETY 2 New 6/1/07
TECHNICAL 3 Raised 4/3/20
BETA .85 (1.00 = Market)

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$76-$113	$95 (15%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	105	(+25%)	10%
Low	80	(-5%)	4%

Institutional Decisions

	2Q2019	3Q2019	4Q2019
to Buy	682	711	806
to Sell	586	582	557
Hld's(000)	7059915	445072	476731

High	53.8	55.8	66.4	71.1	75.5	87.3	90.0	87.8	91.8	91.4	97.4	103.8
Low	35.2	46.4	50.6	59.6	64.2	67.1	65.5	70.2	76.1	72.0	82.5	62.1

LEGENDS
0.54 x Dividends p sh divided by Interest Rate
Relative Price Strength
1-for-3 Rev split 7/12
Options Yes
Shaded area indicates recession

1-for-3 Reverse

Target Price Range 2023 | 2024 | 2025: 160, 120, 100, 80, 60, 50, 40, 30, 20, 15

% TOT RETURN 4/20

	THIS STOCK	VL ARITH* INDEX
1 yr	-4.1	-15.6
3 yr	15.5	-2.4
5 yr	34.1	12.2

Percent shares traded: 15, 10, 5

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	© VALUE LINE PUB. LLC	23-25
--	--	25.32	30.24	31.15	29.18	32.22	32.63	27.88	34.84	33.84	34.10	32.49	33.66	33.73	34.21	*33.25*	*33.95*	Revenues per sh	*36.25*
--	--	7.86	8.11	7.34	7.58	8.49	8.68	6.80	8.56	9.11	9.40	9.20	10.01	10.49	12.13	*12.05*	*12.75*	"Cash Flow" per sh	*14.25*
--	--	2.76	3.60	3.03	3.39	4.02	4.14	3.71	3.98	4.13	4.10	3.71	4.22	4.13	5.07	*5.10*	*5.30*	Earnings per sh [A]	*6.00*
--	--	--	2.58	2.70	2.82	2.91	2.97	3.03	3.09	3.15	3.24	3.36	3.49	3.64	3.75	*3.82*	*3.89*	Div'd Decl'd per sh [B] ■	*4.10*
--	--	8.07	7.43	10.35	9.85	10.84	9.80	7.81	7.83	7.62	9.83	11.29	11.50	12.91	15.17	*15.50*	*14.70*	Cap'l Spending per sh	*13.75*
--	--	62.30	50.40	49.51	49.85	50.84	51.14	58.04	58.54	57.81	57.74	58.62	59.63	60.27	61.20	*63.80*	*65.35*	Book Value per sh [C]	*71.00*
--	--	418.96	420.62	423.96	436.29	442.96	445.29	704.00	706.00	707.00	688.00	700.00	700.00	727.00	733.00	*764.00*	*770.00*	Common Shs Outst'g [D]	*785.00*
--	--	--	16.1	17.3	13.3	12.7	13.8	17.5	17.4	17.9	18.2	21.3	19.9	19.4	17.7	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*15.5*
--	--	--	85	1.04	89	.81	.87	1.11	98	94	92	1.12	1.00	1.05	95			Relative P/E Ratio	*.85*
--	--	--	4.4%	5.2%	6.2%	5.7%	5.2%	4.7%	4.4%	4.3%	4.3%	4.3%	4.2%	4.5%	4.2%			Avg Ann'l Div'd Yield	*4.4%*
14272	14529	19624	24598	23925	23459	22743	23565	24521	25079	*25400*	*26150*	Revenues ($mill)	*28500*
1765.0	1839.0	2136.0	2813.0	2934.0	2854.0	2560.0	2963.0	2928.0	3755.0	*3860*	*4170*	Net Profit ($mill)	*4740*
32.6%	31.3%	30.2%	32.6%	30.6%	32.2%	31.0%	30.4%	14.2%	12.7%	*12.0%*	*12.0%*	Income Tax Rate	*12.0%*
22.7%	23.2%	22.3%	8.8%	7.2%	9.2%	11.7%	12.3%	13.0%	7.9%	*9.0%*	*8.0%*	AFUDC % to Net Profit	*8.0%*
44.3%	45.1%	47.0%	48.0%	47.7%	48.6%	52.6%	54.0%	53.8%	54.0%	*52.5%*	*53.0%*	Long-Term Debt Ratio	*53.5%*
55.7%	54.9%	52.9%	52.0%	52.3%	51.4%	47.4%	46.0%	46.2%	44.1%	*45.5%*	*45.5%*	Common Equity Ratio	*45.0%*
40457	41451	77307	79482	78088	77222	86609	90774	94940	101807	*106650*	*110725*	Total Capital ($mill)	*123600*
40344	42661	68558	69490	70046	75709	82520	86391	91694	102127	*108475*	*114050*	Net Plant ($mill)	*128400*
5.5%	5.6%	3.6%	4.6%	4.8%	4.8%	4.0%	4.3%	4.2%	4.8%	*4.5%*	*5.0%*	Return on Total Cap'l	*5.0%*
7.8%	8.1%	5.2%	6.8%	7.2%	7.2%	6.2%	7.1%	6.7%	8.0%	*7.5%*	*8.0%*	Return on Shr. Equity	*8.0%*
7.8%	8.1%	5.2%	6.8%	7.2%	7.2%	6.2%	7.1%	6.7%	8.3%	*7.5%*	*8.0%*	Return on Com Equity [E]	*8.5%*
2.1%	2.2%	.9%	1.5%	1.7%	1.5%	6%	1.2%	1.0%	2.4%	*2.0%*	*2.0%*	Retained to Com Eq	*2.5%*
73%	72%	82%	78%	76%	79%	91%	83%	84%	71%	*77%*	*74%*	All Div'ds to Net Prof	*70%*

CAPITAL STRUCTURE as of 12/31/19
Total Debt $61261 mill **Due in 5 Yrs** $20740 mill
LT Debt $54985 mill **LT Interest** $2155 mill
Incl $969 mill capitalized leases
(LT interest earned: 2.8x)
Leases, Uncapitalized Annual rentals $268 mill
Pension Assets-12/19 $8910 mill
Oblig $8231 mill
Pfd Stock $1962 mill **Pfd Div'd** $58 mill
40 mill shs 5.75%, cum., $25 liq. value, redeemable at $25.50 prior to 6/15/24, 1 mill shs 4.875%, cum., $1000 liq. value
Common Stock 733,321,965 shs **as of 1/31/20**
MARKET CAP. $61 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2017	2018	2019
% Change Retail Sales (KWH)	-2.0	+3.9	-.9
Avg. Indust. Use (MWH)	2914	2953	2934
Avg. Indust. Revs. per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	NA	NA	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (avg.)	+1.3	+1.4	+1.5
Fixed Charge Cov. (%)	272	218	233

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '17-'19 to '23-'25
Revenues	1.0%	1.0%	*1.0%*
"Cash Flow"	3.5%	6.0%	*4.5%*
Earnings	3.0%	2.5%	*5.0%*
Dividends	3.0%	3.0%	*2.0%*
Book Value	2.0%	1.0%	*2.5%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	5729	5555	6482	5799	23565
2018	6135	5643	6628	6115	24521
2019	6163	5873	6940	6103	25079
2020	*6250*	*5900*	*7000*	*6250*	*25400*
2021	*6450*	*6050*	*7200*	*6450*	*26150*

EARNINGS PER SHARE [A]

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	1.02	.98	1.36	.86	4.22
2018	1.17	.71	1.63	.61	4.13
2019	1.24	1.12	1.82	.89	5.07
2020	*1.30*	*1.05*	*1.80*	*.95*	*5.10*
2021	*1.35*	*1.10*	*1.90*	*.95*	*5.30*

QUARTERLY DIVIDENDS PAID [B] ■

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	.825	.825	.855	.855	3.36
2017	.855	.855	.89	.89	3.49
2018	.89	.89	.927	.928	3.64
2019	.927	.928	.945	.945	3.75
2020	.945				

BUSINESS: Duke Energy Corporation is a holding company for utilities with 7.6 mill. elec. customers in NC, FL, IN, SC, OH, & KY, and 1.6 mill. gas customers in OH, KY, NC, SC, and TN. Owns independent power plants & has 25% stake in National Methanol in Saudi Arabia. Acq'd Progress Energy 7/12. Piedmont Natural Gas 10/16, discontinued most int'l ops. in '16. Elec. rev. breakdown: residential, 44%, commercial, 28%; industrial, 14%, other, 14%. Generating sources: gas, 29%, nuclear, 29%, coal, 22%, other, 1%, purchased, 19%. Fuel costs: 30% of revs. '19 reported deprec. rate: 3.1%. Has 28,800 employees. Chairman, President & CEO: Lynn J. Good. Inc.: DE. Address: 550 South Tryon St., Charlotte, NC 28202-1803. Tel.: 704-382-3853. Internet: www.duke-energy.com

Duke Energy has some rate cases pending. In North Carolina, Duke Energy Carolinas and Duke Energy Progress are seeking increases of $291 million (6.0%) and $464 million (12.3%), respectively, based on a 10.3% return on equity and a 53% common-equity ratio. In Indiana, the utility filed for a hike of $395 million (15%), based on a 10.4% ROE and a 53% common-equity ratio. Duke is seeking $345 million in 2020 and $50 million in 2021. In Kentucky, the company requested a boost of $46 million (12.5%), based on a 9.8% ROE and a 48% common-equity ratio. However . . .

There might well be delays in receiving rate relief. Hearings on the Duke Energy Carolinas proceeding have been delayed due to the coronavirus-related disruptions to normal operations. New tariffs were expected to take effect in the third quarter of 2020; how long implementation will be delayed, and whether the utility will be able to get interim rate relief, is unknown. Also unknown is whether orders in other states will be delayed.

We estimate just a slight profit increase this year. We are not assuming that Duke will obtain interim rate relief if any rate orders are delayed. In addition, the weak economy will hurt commercial and industrial kilowatt-hour sales. We have lowered our 2020 share-earnings estimate by $0.10, to $5.10. This is near the low end of the company's targeted range of $5.05-$5.45 (which was issued in mid-February, when the economy was in better shape). We think rate relief and a better economy will produce a 4% earnings increase in 2021, within Duke's annual growth goal of 4%-6%.

The cost of a proposed gas pipeline has risen again. Litigation has delayed the 47%-owned project and caused sizable cost overruns. The latest estimate is $8.0 billion, up from $7.3 billion-$7.8 billion. Duke will issue $2.5 billion of common equity (through a forward sale) by yearend to finance its share of the pipeline.

This stock has an above-average dividend yield for a utility. But total return potential is lackluster for the 18-month and 3- to 5-year periods. The stock price is down 9% this year, which is less than the fall in most utility issues.

Paul E. Debbas, CFA *May 15, 2020*

(A) Diluted EPS. Excl. nonrec. losses '12, 70¢, '13, 24¢, '14, 67¢, '17, 15¢, '18, 41¢; losses on disc. ops.: '14, 80¢, '16, 60¢, '18 EPS don't sum due to rounding. Next earnings report due early Aug. (B) Div'ds paid mid-Mar., June, Sept., & Dec. ■ Div'd reinv. plan avail. (C) Incl. intang. In '19: $44.37/sh. (D) In mill., adj. for rev. split. (E) Rate base: Net orig. cost. Rates all'd on com. eq. in '18 in NC: 9.9%, in '19 in SC: 9.5%, in '20 in FL: 9.5%-11.5%, in '04 in IN: 10.5%, earned on avg. com. eq., '19: 8.3%. Reg. Clim.: NC Avg., SC, OH, IN Above Avg.

Company's Financial Strength	A
Stock's Price Stability	90
Price Growth Persistence	40
Earnings Predictability	90

EDISON INTERNAT'L NYSE-EIX

RECENT PRICE 55.98 | P/E RATIO 13.7 (Trailing: 14.5 Median: 14.0) | RELATIVE P/E RATIO 0.67 | DIV'D YLD 4.6% | VALUE LINE

TIMELINESS 3 Raised 8/30/19
SAFETY 3 Lowered 11/23/18
TECHNICAL 3 Raised 7/24/20
BETA .90 (1.00 = Market)

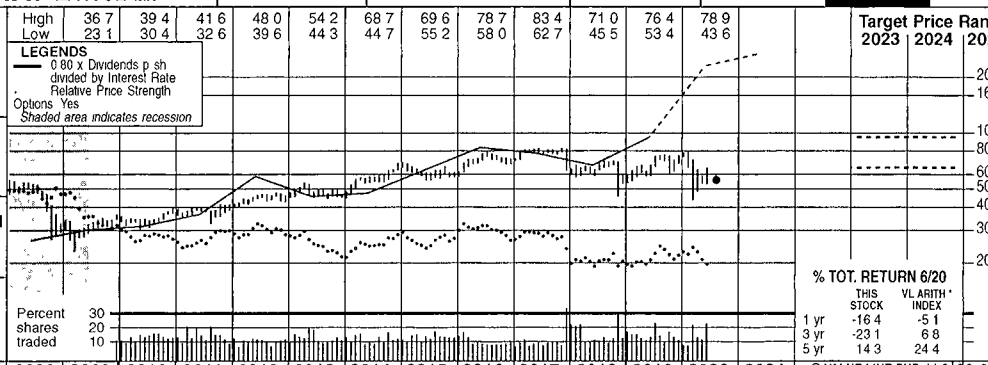
18-Month Target Price Range
Low-High Midpoint (% to Mid)
$45-$113 $79 (40%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	95	(+70%)	17%
Low	65	(+15%)	8%

Institutional Decisions

	3Q2019	4Q2019	1Q2020
to Buy	339	328	274
to Sell	231	243	304
Hld's(000)	316321	325429	318333



2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	© VALUE LINE PUB. LLC	23-25
31.30	36.38	38.74	40.25	43.31	37.98	38.09	39.16	36.41	38.61	41.17	35.37	36.43	37.81	38.85	34.11	*31.75*	*33.35*	Revenues per sh	*39.25*
3.79	6.99	7.25	7.60	8.08	7.96	8.41	9.03	9.63	8.80	9.95	10.35	10.43	11.03	4.69	9.15	*10.30*	*10.85*	"Cash Flow" per sh	*12.75*
.69	3.34	3.28	3.32	3.68	3.24	3.35	3.23	4.55	3.78	4.33	4.15	3.94	4.51	d1.26	3.98	*4.10*	*4.25*	Earnings per sh [A]	*5.25*
.80	1.02	1.10	1.18	1.23	1.25	1.27	1.29	1.31	1.37	1.48	1.73	1.98	2.23	2.43	2.48	*2.58*	*2.68*	Div'd Decl'd per sh [B] ■	*3.00*
5.32	5.73	7.78	8.67	8.67	10.07	13.94	14.76	12.73	11.05	11.99	12.97	11.46	11.75	13.84	13.47	*13.25*	*14.30*	Cap'l Spending per sh	*14.25*
18.57	20.30	23.66	25.92	29.21	30.20	32.44	30.86	28.95	30.50	33.64	34.89	36.82	35.82	32.10	36.75	*39.10*	*40.65*	Book Value per sh [C]	*46.50*
325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	361.99	*378.00*	*378.00*	Common Shs Outst'g [D]	*378.00*
37.6	11.7	13.0	16.0	12.4	9.7	10.3	11.8	9.7	12.7	13.0	14.8	17.9	17.2	--	16.7	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*15.0*
1.99	.62	.70	.85	.75	.65	.66	.74	.62	.71	.68	.75	.94	.87	--	.90			Relative P/E Ratio	*.85*
3.1%	2.6%	2.6%	2.2%	2.7%	4.0%	3.7%	3.4%	3.0%	2.8%	2.6%	2.8%	2.8%	2.9%	3.8%	3.7%			Avg Ann'l Div'd Yield	*3.8%*
12409	12760	11862	12581	13413	11524	11869	12320	12657	12347	*12000*	*12600*	Revenues ($mill)	*14800*
1153.0	1112.0	1594.0	1344.0	1539.0	1480.0	1422.0	1603.0	d290.0	1477.0	*1645*	*1725*	Net Profit ($mill)	*2100*
32.1%	25.7%	14.3%	25.2%	22.4%	6.6%	11.1%	5.0%	--	NMF	*Nil*	*Nil*	Income Tax Rate	*Nil*
16.9%	14.8%	8.5%	7.8%	5.8%	8.0%	6.8%	7.2%	--	11.1%	*10.0%*	*10.0%*	AFUDC % to Net Profit	*8.0%*
51.8%	55.3%	45.2%	45.7%	44.1%	45.0%	41.8%	45.6%	53.6%	53.5%	*53.5%*	*55.0%*	Long-Term Debt Ratio	*58.0%*
44.3%	40.6%	46.2%	46.2%	47.2%	46.7%	49.2%	45.8%	38.3%	39.9%	*40.5%*	*39.5%*	Common Equity Ratio	*37.5%*
23861	24773	20422	21516	23216	24352	24362	25506	27284	33360	*36500*	*39025*	Total Capital ($mill)	*47200*
24778	32116	30273	30455	32981	35085	37000	39050	41348	44285	*46900*	*49800*	Net Plant ($mill)	*57700*
6.3%	6.0%	8.9%	7.3%	7.7%	7.1%	6.9%	7.3%	.1%	5.6%	*5.5%*	*5.5%*	Return on Total Cap'l	*6.0%*
10.0%	10.0%	14.2%	11.5%	11.9%	11.1%	10.0%	11.6%	NMF	9.5%	*9.5%*	*10.0%*	Return on Shr. Equity	*10.5%*
10.4%	10.5%	15.9%	12.5%	13.0%	12.0%	10.8%	12.7%	NMF	10.2%	*10.5%*	*10.5%*	Return on Com Equity [E]	*11.0%*
6.5%	6.3%	11.4%	8.1%	8.8%	7.2%	5.6%	6.6%	NMF	4.1%	*4.0%*	*4.0%*	Retained to Com Eq	*5.0%*
40%	43%	32%	40%	37%	44%	53%	52%	NMF	63%	*65%*	*66%*	All Div'ds to Net Prof	*60%*

CAPITAL STRUCTURE as of 3/31/20
Total Debt $21301 mill **Due in 5 Yrs** $5647 mill
LT Debt $19125 mill **LT Interest** $896 mill
(LT interest earned 2.3x)
Leases, Uncapitalized Annual rentals $107 mill
Pens. Assets-12/19 $3755 mill **Oblig** $4139 mill
Pfd Stock $2193 mill **Pfd Div'd** $121 mill
4,800,198 sh 4.08%-4.78%, $25 par, call $25.50-$28.75/sh , 3,250,000 sh variable, noncum , call $100, 1,250,000 sh 6.5%, cum , $100 liq value, 350,000 sh 6.25%, $1000 liq value, 460,012 sh 5.1%-5.75%, $2500 liq value
Common Stock 363,560,677 shs **as of 4/27/20**
MARKET CAP: $20 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2017	2018	2019
% Change Retail Sales (KWH)	+2	-4	-2.7
Avg Indust Use (MWH)	643	667	657
Avg Indust Revs per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	23508	23766	22009
Annual Load Factor (%)	48.8	48.0	49.6
% Change Customers (yr end)	+7	+6	+5
Fixed Charge Cov. (%)	241	NMF	172

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '17-'19 to '23-'25
Revenues	-1.0%	-1.0%	*1.0%*
"Cash Flow"	5%	-2.5%	*7.5%*
Earnings	-3.5%	-10.5%	*NMF*
Dividends	7.0%	11.5%	*4.0%*
Book Value	2.0%	2.5%	*5.0%*

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	2463	2965	3672	3220	12320
2018	2564	2815	4269	3009	12657
2019	2824	2812	3741	2970	12347
2020	2790	*2710*	*3700*	*2800*	*12000*
2021	*2800*	*2900*	*3900*	*3000*	*12600*

Calendar	EARNINGS PER SHARE [A] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	1.11	.85	1.43	1.12	4.51
2018	.82	.84	1.57	d4.49	d1.26
2019	.64	1.57	1.35	.45	3.98
2020	.50	*1.30*	*1.45*	*.85*	*4.10*
2021	*.70*	*1.20*	*1.50*	*.85*	*4.25*

Calendar	QUARTERLY DIVIDENDS PAID [B] ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	.48	.48	.48	.48	1.92
2017	.5425	.5425	.5425	.5425	2.17
2018	.605	.605	.605	.605	2.42
2019	.6125	.6125	.6125	.6125	2.45
2020	.6375	.6375			

BUSINESS: Edison International (formerly SCECorp) is a holding company for Southern California Edison Company (SCE), which supplies electricity to 5.1 mill customers in a 50,000-sq.-mi area in central, coastal, & southern CA (excl Los Angeles & San Diego). Edison Energy is an energy svcs co. Disc Edison Mission Energy (independent power producer) in '12. Elec rev breakdown: residential, 39%, commercial, 43%, industrial, 4%, other, 14%. Generating sources: nuclear, 8%, gas, 7%, hydro, 5%, purchased, 80%. Fuel costs: 39% of revs '19. Reported depr rate: 3.6%. Has 12,500 empls. Chairman: William P. Sullivan. Pres. & CEO: Pedro J. Pizzaro. Inc: CA. Address: 2244 Walnut Grove Ave., P.O. Box 976, Rosemead, CA 91770. Tel: 626-302-2222. Web: www.edison.com

Edison International's utility subsidiary has a general rate case pending. Southern California Edison filed for increases of $1.109 billion (11.4%) for 2021, $423 million for 2022, and $514 million for 2023. The California Public Advocates proposed hikes of $458 million in 2021, $242 million in 2022, and $250 million in 2023, and recommended the approval of roughly 90% of SCE's proposed capital spending. Even if an order doesn't come by yearend, any rate relief the utility receives will be retroactive to the start of 2021.

Our 2020 earnings estimate is below the company's targeted range of $4.32-$4.62 a share for "core" earnings. Edison International's guidance excludes charges the company books for the amortization expense stemming from a fund utilities contributed to in order to address the potentially huge liabilities associated with wildfires in California. This amounted to $60 million after taxes in the March quarter. Note that the coronavirus should have little effect on the company's income because its revenues and volume are decoupled and it should be able to defer related costs for future recovery.

The company has completed its financing plans for 2020. Earlier this year, the parent and SCE issued $2.7 billion of long-term debt. Any debt the utility issues subsequently will be for refinancing. Edison International also sold $900 million of common stock (up from $800 million previously expected), and stated that its equity needs will be "minimal" beyond this year. Because of these significant financing moves, we estimate only a modest increase in share net next year, despite the benefit of rate relief from the aforementioned general rate case.

Wildfires in California continue to be an investment concern. The company took a big reserve in the fourth quarter of 2018 and a much-smaller charge in the same period of 2019 for potential liabilities stemming from wildfire damage. Additional charges might well occur. At least the aforementioned fund should help meet costs associated with future wildfires.

The stock's yield is about a percentage point above the utility average. Total return potential to 2023-2025 is modest, but above average for the group.

Paul E. Debbas, CFA *July 24, 2020*

(A) Dil. EPS. Excl. nonrec. gains (losses): '04, $2.12, '09, (64¢), '10, 54¢, '11, ($3.33), '13, ($1.12), '15, ($1.18), '17, ($1.37), '18, (15¢), '19, (21¢); gains (loss) from disc. ops.: '12, ($5.11); '13, 11¢, '14, 57¢, '15, 11¢; '18, 10¢. '19 EPS don't sum due to chng. in shs. Next earnings report due late July. (B) Div'ds paid late Jan., Apr., July, & Oct. ■ Div'd reinv. plan avail. (C) Incl. def'd charges. In '19: $16.82/sh. (D) In mill. (E) Rate base: net orig. cost. Rate all'd on com. eq. in '20: 10.3%, earned on avg. com. eq., '19: 11.5%. Regulatory Climate: Avg.

Company's Financial Strength	B+
Stock's Price Stability	75
Price Growth Persistence	60
Earnings Predictability	5

ENTERGY CORP. NYSE-ETR

RECENT PRICE 102.68 | P/E RATIO 20.3 (Trailing: 18.4, Median: 13.0) | RELATIVE P/E RATIO 1.03 | DIV'D YLD 3.7% | VALUE LINE

TIMELINESS 3 Raised 10/26/18
SAFETY 2 Raised 12/13/19
TECHNICAL 3 Lowered 6/5/20
BETA .95 (1.00 = Market)

18-Month Target Price Range

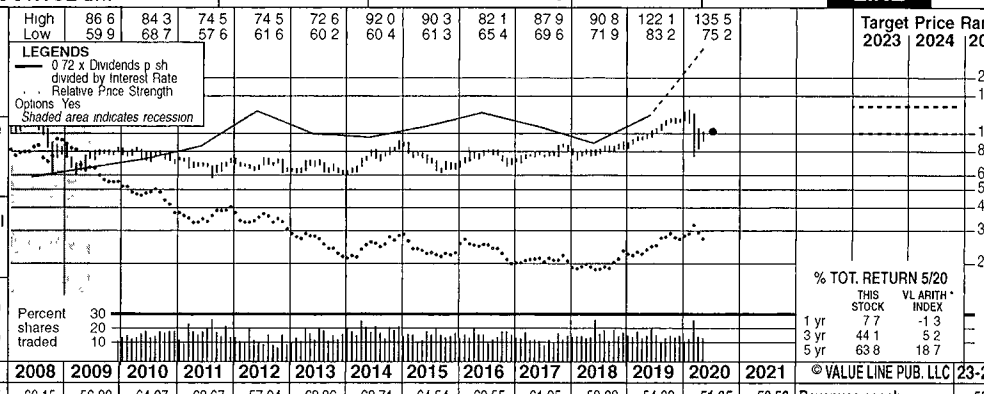
Low-High	Midpoint (% to Mid)
$74-$166	$120 (15%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	140	(+35%)	11%
Low	100	(-5%)	3%

Institutional Decisions

	3Q2019	4Q2019	1Q2020
to Buy	298	348	281
to Sell	248	242	349
Hld's(000)	175725	176392	172217



2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	© VALUE LINE PUB. LLC	23-25
46.69	46.61	53.94	59.47	69.15	56.82	64.27	63.67	57.94	63.86	69.71	64.54	60.55	61.35	58.23	54.63	*51.25*	*50.50*	Revenues per sh	*50.00*
8.33	8.18	10.69	11.73	12.89	13.29	16.54	17.53	15.98	16.25	17.68	17.71	18.72	16.70	16.50	17.19	*16.70*	*17.95*	"Cash Flow" per sh	*21.00*
3.93	4.40	5.36	5.60	6.20	6.30	6.66	7.55	6.02	4.96	5.77	5.81	6.88	5.19	5.88	6.30	*5.05*	*5.80*	Earnings per sh [A]	*7.00*
1.89	2.16	2.16	2.58	3.00	3.00	3.24	3.32	3.32	3.32	3.32	3.34	3.42	3.50	3.58	3.66	*3.74*	*3.86*	Div'd Decl'd per sh [B] ■ †	*4.55*
6.51	6.72	9.44	10.29	13.92	12.99	13.33	15.21	18.18	15.73	14.82	16.79	17.28	22.07	22.45	21.72	*20.75*	*19.15*	Cap'l Spending per sh	*18.75*
38.26	35.71	40.45	40.71	42.07	45.54	47.53	50.81	51.73	54.00	55.83	51.89	45.12	44.28	46.78	51.34	*52.80*	*55.20*	Book Value per sh [C]	*62.75*
216.83	216.83	202.67	193.12	189.36	189.12	178.75	176.36	177.81	178.37	179.24	178.39	179.13	180.52	189.06	199.15	*200.00*	*204.00*	Common Shs Outst'g [D]	*212.00*
15.1	16.3	14.3	19.3	16.6	12.0	11.6	9.1	11.2	13.2	12.9	12.5	10.9	15.0	13.8	16.5	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*17.0*
.80	.87	.77	1.02	1.00	.80	.74	.57	.71	.74	.68	.63	.57	.75	.75	.88			Relative P/E Ratio	*.95*
3.2%	3.0%	2.8%	2.4%	2.9%	4.0%	4.2%	4.9%	4.9%	5.1%	4.5%	4.6%	4.6%	4.5%	4.4%	3.5%			Avg Ann'l Div'd Yield	*3.8%*
11488	11229	10302	11391	12495	11513	10846	11074	11009	10879	*10250*	*10300*	Revenues ($mill)	*10600*
1270.3	1367.4	1091.9	904.5	1060.0	1061.2	1249.8	950.7	1092.1	1258.2	*1030*	*1195*	Net Profit ($mill)	*1490*
32.7%	17.3%	13.0%	26.7%	37.8%	2.2%	11.3%	1.8%	1.8%	NMF	*18.0%*	*22.0%*	Income Tax Rate	*22.0%*
7.4%	8.9%	11.9%	10.1%	9.3%	7.4%	8.1%	14.7%	17.5%	16.7%	*19.0%*	*16.0%*	AFUDC % to Net Profit	*13.0%*
56.3%	52.2%	55.8%	55.1%	54.9%	57.8%	63.6%	63.6%	63.2%	62.0%	*62.0%*	*62.0%*	Long-Term Debt Ratio	*58.5%*
42.1%	46.4%	42.9%	43.6%	43.8%	40.8%	35.5%	35.5%	35.9%	37.1%	*37.5%*	*37.5%*	Common Equity Ratio	*41.0%*
20166	19324	21432	22109	22842	22714	22777	22528	24602	27557	*28350*	*30150*	Total Capital ($mill)	*32500*
23848	25609	27299	27882	28723	27824	27921	29664	31974	35183	*37050*	*38525*	Net Plant ($mill)	*41700*
7.7%	8.5%	6.4%	5.4%	6.0%	6.0%	6.9%	5.7%	5.8%	5.9%	*5.0%*	*5.5%*	Return on Total Cap'l	*6.0%*
14.4%	14.8%	11.5%	9.1%	10.3%	11.1%	15.1%	11.6%	12.0%	12.0%	*9.5%*	*10.5%*	Return on Shr. Equity	*11.0%*
14.7%	15.0%	11.6%	9.2%	10.4%	11.2%	15.2%	11.7%	12.2%	12.1%	*9.5%*	*10.5%*	Return on Com Equity [E]	*11.0%*
7.6%	8.4%	5.2%	3.0%	4.4%	4.8%	7.7%	3.9%	4.9%	5.2%	*2.5%*	*3.5%*	Retained to Com Eq	*4.0%*
49%	45%	56%	68%	58%	58%	50%	68%	61%	58%	*74%*	*67%*	All Div'ds to Net Prof	*66%*

CAPITAL STRUCTURE as of 3/31/20
Total Debt $21400 mill **Due in 5 Yrs** $8317.4 mill
LT Debt $18229 mill **LT Interest** $810.0 mill
Incl $271.4 mill of securitization bonds
(LT interest earned 1.8x)
Leases, Uncapitalized Annual rentals $62.1 mill
Pension Assets-12/19 $6271.2 mill
Oblig $8406.2 mill.
Pfd Stock $254.4 mill **Pfd Div'd** $18.3 mill
200,000 shs. 6.25%-7.5%, $100 par, 250,000 shs. 8.75%, 1.4 mill. shs. 5.375%, all cum., without sinking fund
Common Stock 200,161,934 shs. **as of 4/30/20**
MARKET CAP: $21 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2017	2018	2019
% Change Retail Sales (KWH)	+.2	+4.1	-1.4
Avg. Indust. Use (MWH)	1034	946	NA
Avg. Indust. Revs. per KWH(¢)	5.41	5.16	5.24
Capacity at Peak (Mw)	24279	23121	NA
Peak Load, Summer (Mw)	21671	21587	21598
Annual Load Factor (%)	62	65	NA
% Change Customers (yr-end)	+.6	+.6	NA
Fixed Charge Cov. (%)	169	95	165

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '17-'19 to '23-'25
Revenues	-.5%	-2.0%	*-2.5%*
"Cash Flow"	3.0%	--	*4.0%*
Earnings	-.5%	.5%	*3.0%*
Dividends	2.5%	1.5%	*4.0%*
Book Value	1.0%	-2.5%	*5.0%*

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	2588	2618	3244	2624	11074
2018	2724	2669	3104	2512	11009
2019	2610	2666	3141	2462	10879
2020	2427	*2423*	*3000*	*2400*	*10250*
2021	*2600*	*2500*	*2900*	*2300*	*10300*

Calendar	EARNINGS PER SHARE [A] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.46	2.27	2.21	.25	5.19
2018	.73	1.34	3.42	.39	5.88
2019	1.32	1.22	1.82	1.94	6.30
2020	.59	*1.25*	*2.45*	*.76*	*5.05*
2021	*1.10*	*1.50*	*2.60*	*.60*	*5.80*

Calendar	QUARTERLY DIVIDENDS PAID [B] ■ † Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	.85	.85	.85	.87	3.42
2017	.87	.87	.87	.89	3.50
2018	.89	.89	.89	.91	3.58
2019	.91	.91	.91	.93	3.66
2020	.93	.93			

BUSINESS: Entergy Corporation supplies electricity to 2.9 million customers through subsidiaries in Arkansas, Louisiana, Mississippi, Texas, and New Orleans (regulated separately from Louisiana). Distributes gas to 202,000 customers in Louisiana. Has a nonutility subsidiary that owns six nuclear units (four no longer operating). Electric revenue breakdown: residential, 38%, commercial, 26%, industrial, 27%, other, 9%. Generating sources: gas, 40%, nuclear, 28%, coal, 6%, purchased, 26%. Fuel costs: 30% of revenues '19. reported depreciation rate: 2.8%. Has 13,600 employees. Chairman & CEO: Leo P. Denault. Incorporated: Delaware. Address: 639 Loyola Avenue, P.O. Box 61000, New Orleans, Louisiana 70161. Telephone: 504-576-4000. Internet: www.entergy.com

Entergy's earnings are likely to decline this year. The fourth quarter of 2019 benefited from tax credits, which we *included* in our earnings presentation because the company has recorded similar benefits in previous years. In addition, Entergy's nonutility activities (primarily nonregulated nuclear units) lost $0.55 a share in the first quarter of 2020. The company is exiting most of these operations and excludes these results from its 2020 earnings guidance of $5.45-$5.75, but we include these results. We cut our 2020 earnings estimate by $0.40 a share, to $5.05, because March-quarter results were below our $1.00 estimate.

The company did not change its earnings guidance, despite the falloff in the economy. Management estimates the slump in commercial and industrial kilowatt-hour sales will reduce revenues by $120 million-$140 million this year, only partially offset by rising residential volume. In response, Entergy is cutting operating and maintenance expenses by $100 million. The company's utilities are deferring for future recovery their costs associated with the coronavirus problem. Entergy's targeted range for 2021 profits remains $5.80-$6.10 a share. Our estimate is at the bottom end of this range.

Entergy Louisiana completed a gas-fired generating plant in March, and three more gas-fired facilities are under construction. The new plant cost $872 million for 994 megawatts of capacity. Entergy New Orleans is adding 128 mw at a cost of $210 million. Entergy Louisiana is building a 361-mw facility for $261 million, and Entergy Texas is constructing 993 mw at a cost of $937 million. These facilities are still needed to meet customer demand, despite the recession, and will boost the company's earning power. The utilities will recover the costs of these projects either with a general rate case or through a formula rate plan.

The valuation of Entergy stock is about average for a utility. The dividend yield is close to the industry mean. The stock has declined 14% this year, a similar proportion to many utility issues. Total return potential is about average for the 18-month span and unspectacular for the 3- to 5-year period.

Paul E. Debbas, CFA *June 12, 2020*

(A) Diluted EPS. Excl. nonrec. losses '05, 21¢, '12, $1.26; '13, $1.14, '14, 56¢, '15, $6.99, '16, $10.14, '17, $2.91, '18, $1.25. Next earnings report due early Aug. (B) Div'ds historically paid in early Mar., June, Sept., & Dec. ■ Div'd reinvestment plan avail. † Shareholder investment plan avail. (C) Incl. def'd charges. In '19, $29.67/sh. (D) In millions. (E) Rate base: Net original cost. Allowed ROE (blended): 9.95%, earned on avg. com. eq., '19: 13.0%. Regulatory Climate: Average.

Company's Financial Strength	B++
Stock's Price Stability	90
Price Growth Persistence	20
Earnings Predictability	60

IDACORP, INC. NYSE-IDA

RECENT PRICE 90.28 | P/E RATIO 19.8 (Trailing: 20.0 Median: 16.0) | RELATIVE P/E RATIO 0.96 | DIV'D YLD 3.1% | VALUE LINE

TIMELINESS 3 Lowered 3/1/19
SAFETY 2 Raised 8/2/13
TECHNICAL 3 Raised 4/24/20
BETA .80 (1.00 = Market)

18-Month Target Price Range
Low-High Midpoint (% to Mid)
$71-$145 $108 (20%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	115	(+25%)	9%
Low	85	(-5%)	2%

Institutional Decisions

	3Q2019	4Q2019	1Q2020
to Buy	148	172	167
to Sell	165	157	174
Hld's(000)	38815	39667	39043

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	© VALUE LINE PUB. LLC	23-25
	20.00	20.15	21.23	19.51	20.47	21.92	20.97	20.55	21.55	24.81	25.51	25.23	25.04	26.76	27.19	26.70	*24.80*	*25.75*	Revenues per sh	*28.75*
	4.12	3.87	4.58	4.11	4.27	5.07	5.35	5.84	5.93	6.29	6.58	6.70	6.86	7.50	7.85	8.07	*8.10*	*8.50*	"Cash Flow" per sh	*9.75*
	1.90	1.75	2.35	1.86	2.18	2.64	2.95	3.36	3.37	3.64	3.85	3.87	3.94	4.21	4.49	4.61	*4.55*	*4.75*	Earnings per sh [A]	*5.50*
	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.37	1.57	1.76	1.92	2.08	2.24	2.40	2.56	*2.73*	*2.93*	Div'd Decl'd per sh [B] ■ †	*3.55*
	4.73	4.53	5.16	6.39	5.19	5.26	6.85	6.76	4.78	4.68	5.45	5.84	5.89	5.66	5.51	5.53	*6.80*	*6.95*	Cap'l Spending per sh	*7.00*
	23.88	24.04	25.77	26.79	27.76	29.17	31.01	33.19	35.07	36.84	38.85	40.88	42.74	44.65	47.01	48.88	*50.60*	*52.35*	Book Value per sh [C]	*58.00*
	42.22	42.66	43.63	45.06	46.92	47.90	49.41	49.95	50.16	50.23	50.27	50.34	50.40	50.42	50.42	50.42	*50.45*	*50.45*	Common Shs Outst'g [D]	*50.40*
	15.5	16.7	15.1	18.2	13.9	10.2	11.8	11.5	12.4	13.4	14.7	16.2	19.1	20.6	20.5	22.3	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*18.5*
	.82	.89	.82	.97	.84	.68	.75	.72	.79	.75	.77	.82	1.00	1.04	1.11	1.21			Relative P/E Ratio	*1.05*
	4.1%	4.1%	3.4%	3.5%	4.0%	4.5%	3.4%	3.1%	3.3%	3.2%	3.1%	3.1%	2.8%	2.6%	2.6%	2.5%			Avg Ann'l Div'd Yield	*3.5%*
							1036.0	1026.8	1080.7	1246.2	1282.5	1270.3	1262.0	1349.5	1370.8	1346.4	*1250*	*1300*	Revenues ($mill)	*1450*
							142.5	166.9	168.9	182.4	193.5	194.7	198.3	212.4	226.8	232.9	*230*	*240*	Net Profit ($mill)	*280*
							--	--	13.4%	28.3%	8.0%	19.0%	15.5%	18.6%	7.1%	9.5%	*12.0%*	*12.0%*	Income Tax Rate	*12.0%*
							19.1%	23.3%	20.3%	12.3%	13.6%	16.3%	16.3%	13.9%	15.2%	16.2%	*17.0%*	*17.0%*	AFUDC % to Net Profit	*15.0%*
							49.3%	45.6%	45.5%	46.6%	45.3%	45.6%	44.8%	43.7%	43.6%	41.3%	*46.0%*	*46.0%*	Long-Term Debt Ratio	*46.5%*
							50.7%	54.4%	54.5%	53.4%	54.7%	54.4%	55.2%	56.3%	56.4%	58.7%	*54.0%*	*54.0%*	Common Equity Ratio	*53.5%*
							3020.4	3045.2	3225.4	3465.9	3567.6	3783.3	3898.5	3997.5	4205.1	4201.3	*4740*	*4900*	Total Capital ($mill)	*5450*
							3161.4	3406.6	3536.0	3665.0	3833.5	3992.4	4172.0	4283.9	4395.7	4531.5	*4695*	*4860*	Net Plant ($mill)	*5300*
							6.0%	6.8%	6.5%	6.4%	6.6%	6.2%	6.1%	6.3%	6.4%	6.5%	*6.0%*	*6.0%*	Return on Total Cap'l	*6.0%*
							9.3%	10.1%	9.6%	9.9%	9.9%	9.5%	9.2%	9.4%	9.6%	9.4%	*9.0%*	*9.0%*	Return on Shr. Equity	*9.5%*
							9.3%	10.1%	9.6%	9.9%	9.9%	9.5%	9.2%	9.4%	9.6%	9.4%	*9.0%*	*9.0%*	Return on Com Equity [E]	*9.5%*
							5.5%	6.5%	5.7%	5.6%	5.4%	4.8%	4.3%	4.4%	4.4%	4.2%	*3.5%*	*3.5%*	Retained to Com Eq	*3.5%*
							41%	36%	41%	43%	46%	50%	53%	53%	54%	56%	*60%*	*61%*	All Div'ds to Net Prof	*64%*

CAPITAL STRUCTURE as of 3/31/20
Total Debt $1837.0 mill Due in 5 Yrs $299.8 mill
LT Debt $1837.0 mill LT Interest $78.6 mill
(LT interest earned 3.6x)

Pension Assets-12/19 $763.1 mill
Oblig $1134.8 mill

Pfd Stock None

Common Stock 50,453,936 shs
as of 4/24/20

MARKET CAP: $4.6 billion (Mid Cap)

ELECTRIC OPERATING STATISTICS

	2017	2018	2019
% Change Retail Sales (KWH)	+2.6	+.1	-.3
Avg Indust Use (MWH)	NA	NA	NA
Avg Indust Revs per KWH (¢)	5.83	5.64	5.32
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	3422	3392	3242
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr end)	+2.0	+2.3	+2.5
Fixed Charge Cov. (%)	329	309	307

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '17-'19 to '23-'25
Revenues	2.5%	2.5%	*1.0%*
"Cash Flow"	5.5%	4.5%	*4.0%*
Earnings	7.0%	4.0%	*3.5%*
Dividends	7.0%	9.0%	*6.5%*
Book Value	5.5%	5.0%	*3.5%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	302.6	333.0	408.3	305.6	1349.5
2018	310.1	340.0	408.8	311.9	1370.8
2019	350.3	316.9	386.3	292.9	1346.4
2020	291.0	*309*	*375*	*275*	*1250*
2021	*305*	*325*	*385*	*285*	*1300*

EARNINGS PER SHARE [A]

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.66	.99	1.80	.76	4.21
2018	.72	1.23	2.02	.52	4.49
2019	.84	1.05	1.78	.93	4.61
2020	.74	*1.10*	*1.90*	*.81*	*4.55*
2021	*.85*	*1.15*	*2.00*	*.75*	*4.75*

QUARTERLY DIVIDENDS PAID [B] ■ †

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	.51	.51	.51	.55	2.08
2017	.55	.55	.55	.59	2.24
2018	.59	.59	.59	.63	2.40
2019	.63	.63	.63	.67	2.56
2020	.67	.67			

BUSINESS. IDACORP, Inc. is a holding company for Idaho Power Company, a regulated electric utility that serves 572,000 customers throughout a 24,000-square-mile area in southern Idaho and eastern Oregon (population 1.2 million). Most of the company's revenues are derived from the Idaho portion of its service area. Revenue breakdown: residential, 39%, commercial, 22%, industrial, 13%, irrigation, 10%, other, 16%. Generating sources: hydro, 45%, coal, 16%, gas, 11%, purchased, 28%. Fuel costs: 33% of revenues '19. Reported depreciation rate: 2.9%. Has 2,000 employees. Chairman: Richard J. Dahl. President & CEO: Lisa Grow. Incorporated: Idaho. Address: 1221 W. Idaho St., Boise, Idaho 83702. Telephone: 208-388-2200. Internet: www.idacorpinc.com.

IDACORP's utility subsidiary, Idaho Power, is faring better than many other utilities during the coronavirus problem. The company's service area has numerous food processing and agriculture-related businesses, which continued to operate even as some industries were shut down temporarily. In fact, Moody's estimates that the economy of the utility's service territory will grow 0.7% this year, which is good considering that the U.S. economy is in a recession. Customer growth for the 12-month period that ended on March 31st was 2.6%, which is well above the norm (slightly below 1%) for electric companies. Upon reporting first-quarter results, IDACORP maintained its 2020 earnings guidance of $4.45-$4.65 a share, and we did not change our estimate of $4.55 a share. This would amount to a slight decline from the 2019 tally of $4.61 a share, which benefited from an unusually high fourth-quarter showing.

We expect record profits in 2021. The economy will likely be much better, with Moody's estimating economic growth of 5.0% in Idaho Power's service area. This should enable the utility's healthy customer growth to continue. The company might well benefit from an increase in data-center customers, now that the state has eliminated the sales tax on data centers. Our estimate of $4.75 a share would produce a 4% increase.

A regulatory mechanism is available to stabilize the utility's income, if needed. Idaho Power may use up to $25 million of accumulated deferred investment tax credits annually if its return on equity falls below 9.4%. The company does not expect to use any of these credits in order to attain its earnings target for 2020.

The board of directors will probably raise the dividend in September. IDACORP's target for a payout ratio is 60%-70%, and management plans to recommend to the board annual increases of at least 5%. We estimate a hike of $0.05 a share (7.5%) quarterly.

The stock price is down 15% in 2020. This is less than many utility issues. The dividend yield is below the utility mean. Total return potential is below the median for both the 18-month span and the 3- to 5-year period.

Paul E. Debbas, CFA *July 24, 2020*

	Company's Financial Strength	A
	Stock's Price Stability	95
	Price Growth Persistence	90
	Earnings Predictability	95

(A) Diluted EPS. Excl. nonrecurring gain (loss) '05, (24¢), '06, 17¢; '17 & '19 earnings don't sum due to rounding. Next earnings report due late July. (B) Dividends historically paid in late Feb., May, Aug., and Nov. ■ Dividend reinvestment plan available. † Shareholder investment plan available. (C) Incl. intangibles. In '19: $26.31/sh. (D) In millions. (E) Rate base: Net original cost. Rate allowed on common equity in '11: 10% (imputed), earned on avg. com eq., '19: 9.6%. Regulatory Climate: Above Average.

NORTHWESTERN NYSE-NWE

RECENT PRICE 53.13 | P/E RATIO 16.1 (Trailing: 17.2) (Median: 17.0) | RELATIVE P/E RATIO 0.78 | DIV'D YLD 4.6% | VALUE LINE

TIMELINESS 3 Lowered 5/8/20
SAFETY 2 Raised 7/27/18
TECHNICAL 3 Raised 7/24/20
BETA .90 (1.00 = Market)

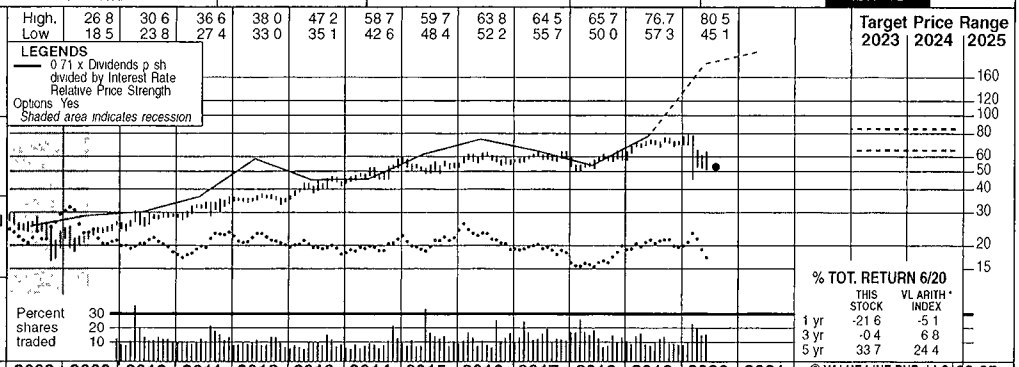
18-Month Target Price Range
Low-High Midpoint (% to Mid)
$44-$101 $73 (35%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	85	(+60%)	16%
Low	65	(+20%)	9%

Institutional Decisions

	3Q2019	4Q2019	1Q2020
to Buy	113	127	127
to Sell	150	133	144
Hld's(000)	49607	49394	48390



2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	© VALUE LINE PUB. LLC	23-25
29.18	32.57	31.49	30.79	35.09	31.72	30.66	30.80	28.76	29.80	25.68	25.21	26.01	26.45	23.81	24.93	*23.75*	*24.25*	Revenues per sh	*26.50*
3.20	4.00	3.62	3.70	4.40	4.62	4.76	5.42	5.18	5.45	5.39	5.92	6.74	6.76	6.96	7.07	*6.85*	*7.15*	"Cash Flow" per sh	*8.00*
d14.32	1.71	1.31	1.44	1.77	2.02	2.14	2.53	2.26	2.46	2.99	2.90	3.39	3.34	3.40	3.53	*3.30*	*3.50*	Earnings per sh A	*3.75*
--	1.00	1.24	1.28	1.32	1.34	1.36	1.44	1.48	1.52	1.60	1.92	2.00	2.10	2.20	2.30	*2.40*	*2.50*	Div'd Decl'd per sh B ■ †	*2.80*
2.25	2.26	2.81	3.00	3.47	5.26	6.30	5.20	5.89	5.95	5.76	5.89	5.96	5.60	5.64	6.26	*7.90*	*7.85*	Cap'l Spending per sh	*6.00*
19.92	20.60	20.65	21.12	21.25	21.86	22.64	23.68	25.09	26.60	31.50	33.22	34.68	36.44	38.60	40.42	*41.80*	*43.00*	Book Value per sh C	*45.75*
35.60	35.79	35.97	38.97	35.93	36.00	36.23	36.28	37.22	38.75	46.91	48.17	48.33	49.37	50.32	50.45	*50.50*	*51.50*	Common Shs Outst'g D	*53.00*
--	17.1	26.0	21.7	13.9	11.5	12.9	12.6	15.7	16.9	16.2	18.4	17.2	17.8	16.8	19.9	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*19.5*
--	.91	1.40	1.15	.84	.77	.82	.79	1.00	.95	.85	.93	.90	.90	.91	1.08			Relative P/E Ratio	*1.10*
--	3.4%	3.6%	4.1%	5.4%	5.7%	4.9%	4.5%	4.2%	3.7%	3.3%	3.6%	3.4%	3.5%	3.9%	3.3%			Avg Ann'l Div'd Yield	*3.8%*
1110.7	1117.3	1070.3	1154.5	1204.9	1214.3	1257.2	1305.7	1198.1	1257.9	*1200*	*1250*	Revenues ($mill)	*1400*
77.4	92.6	83.7	94.0	120.7	138.4	164.2	162.7	171.1	179.3	*170*	*180*	Net Profit ($mill)	*200*
25.0%	9.8%	9.6%	13.2%	--	13.7%	--	7.6%	7.6%	1.6%	*NMF*	*Nil*	Income Tax Rate	*10.0%*
14.2%	3.3%	9.4%	8.7%	8.9%	9.8%	4.3%	5.2%	3.4%	4.6%	*6.0%*	*6.0%*	AFUDC % to Net Profit	*4.0%*
57.2%	52.2%	53.8%	53.5%	53.4%	53.1%	52.0%	50.2%	52.2%	52.5%	*49.0%*	*51.0%*	Long-Term Debt Ratio	*50.0%*
42.8%	47.8%	46.2%	46.5%	46.6%	46.9%	48.0%	49.8%	47.8%	47.5%	*51.0%*	*49.0%*	Common Equity Ratio	*50.0%*
1916.4	1797.1	2020.7	2215.7	3168.0	3408.6	3493.9	3614.5	4064.6	4289.8	*4120*	*4520*	Total Capital ($mill)	*4825*
2118.0	2213.3	2435.6	2690.1	3758.0	4059.5	4214.9	4358.3	4521.3	4700.9	*4920*	*5140*	Net Plant ($mill)	*5500*
5.9%	7.0%	5.5%	5.5%	4.8%	5.2%	5.9%	5.6%	5.2%	5.2%	*5.0%*	*5.0%*	Return on Total Cap'l	*5.0%*
9.4%	10.8%	9.0%	9.1%	8.2%	8.6%	9.8%	9.0%	8.8%	8.8%	*8.0%*	*8.0%*	Return on Shr. Equity	*8.5%*
9.4%	10.8%	9.0%	9.1%	8.2%	8.6%	9.8%	9.0%	8.8%	8.8%	*8.0%*	*8.0%*	Return on Com Equity E	*8.5%*
3.5%	4.7%	3.2%	3.5%	3.8%	3.0%	4.1%	3.4%	3.2%	3.1%	*2.0%*	*2.5%*	Retained to Com Eq	*2.0%*
63%	56%	65%	61%	54%	65%	58%	62%	64%	64%	*72%*	*71%*	All Div'ds to Net Prof	*73%*

CAPITAL STRUCTURE as of 3/31/20
Total Debt $2258.7 mill **Due in 5 Yrs** $448.1 mill
LT Debt $2256.2 mill **LT Interest** $83.7 mill
Incl $16.8 mill capitalized leases
(LT interest earned 2.8x)

Pension Assets-12/19 $609.0 mill
Oblig $735.6 mill

Pfd Stock None

Common Stock 50,568,881 shs
as of 4/17/20

MARKET CAP. $2.7 billion (Mid Cap)

ELECTRIC OPERATING STATISTICS

	2017	2018	2019
% Change Retail Sales (KWH)	+3.8	+2.9	+4.6
Avg Indust Use (MWH)	30987	34573	37808
Avg Indust Revs per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Winter (Mw)	2133	2173	2237
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+1.3	+1.2	+1.2
Fixed Charge Cov. (%)	275	275	284

ANNUAL RATES

of change (per sh)	Past 10 Yrs.	Past 5 Yrs	Est'd '17-'19 to '23-'25
Revenues	-2.5%	-2.0%	*1.0%*
"Cash Flow"	5.0%	5.5%	*2.5%*
Earnings	7.0%	6.0%	*1.5%*
Dividends	5.5%	7.5%	*4.0%*
Book Value	6.0%	7.0%	*3.0%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	367.3	283.9	309.9	344.6	1305.7
2018	341.5	261.8	279.9	314.9	1198.1
2019	384.2	270.7	274.8	328.2	1257.9
2020	335.3	*254.7*	*290*	*320*	*1200*
2021	*355*	*270*	*295*	*330*	*1250*

EARNINGS PER SHARE A

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	1.17	.44	.75	.98	3.34
2018	1.18	.61	.56	1.06	3.40
2019	1.44	.49	.42	1.18	3.53
2020	1.00	*.45*	*.65*	*1.20*	*3.30*
2021	*1.15*	*.50*	*.65*	*1.20*	*3.50*

QUARTERLY DIVIDENDS PAID B ■ †

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	.50	.50	.50	.50	2.00
2017	.525	.525	.525	.525	2.10
2018	.55	.55	.55	.55	2.20
2019	.575	.575	.575	.575	2.30
2020	.60	.60			

BUSINESS. NorthWestern Corporation (doing business as NorthWestern Energy) supplies electricity & gas in the Upper Midwest and Northwest, serving 443,000 electric customers in Montana and South Dakota and 292,000 gas customers in Montana (85% of gross margin), South Dakota (14%), and Nebraska (1%). Electric revenue breakdown residential, 39%, commercial, 47%, industrial, 4%, other, 10%. Generating sources hydro, 34%, coal, 28%, wind, 5%, other, 3%, purchased, 30%. Fuel costs 25% of revenues '19. reported deprec. rate 2.8%. Has 1,500 employees. Chairman Stephen P. Adik. President & CEO Robert C. Rowe. Inc. Delaware. Address 3010 West 69th Street, Sioux Falls, South Dakota 57108. Tel. 605-978-2900. Internet www.northwesternenergy.com

Upon reporting first-quarter earnings in late April, NorthWestern cut its guidance for 2020. Previously, the company expected share net to wind up in a range of $3.45-$3.60. Now, management's target is $3.30-$3.45. This is only partly due to the economic weakness caused by the coronavirus, which was felt most noticeably in the second quarter. First-period profits fell short of management's expectation due to some unusual costs. NorthWestern bases its guidance on normal weather, but we note that a mild winter reduced share earnings by $0.06. Putting it all together, we lowered our 2020 earnings estimate from $3.45 a share to $3.30. Because growth in 2021 will come off a lower base, we trimmed our estimate from $3.55 a share to $3.50.

The utility needs additional generating capacity. NorthWestern has more exposure to the purchased-power markets than other electric companies in the region. The utility intends to build a gas-fired facility in South Dakota, which will add about 60 megawatts of capacity in late 2021 at an expected cost of $80 million. NorthWestern also agreed to pay 50 cents to Puget Sound Energy for a 12.5% stake (92.5 mw) in Unit 4 of the Colstrip coal-fired plant. NorthWestern would sell 45 mw back to Puget Sound Energy and use the remainder to serve its customers. (This deal was originally twice the size, but was halved after another company exercised its purchase option.) The transaction requires the approval of the Montana commission. NorthWestern issued a request for proposals for up to 280 mw of peaking and intermediate capacity for commercial operation in early 2023. The successful project(s) are expected to be selected by early 2021.

The company added some debt in April, and plans to add some equity as well. In the second quarter, NorthWestern issued a $100 million term loan and $150 million of long-term debt. The company plans to issue common equity, possibly in late 2020 but more likely in 2021.

The stock's yield is above the utility average. The price has fallen 26% in 2020, affected by the cut in earnings guidance. Total return potential is strong for the 18-month span, but not as impressive for the 3- to 5-year period.

Paul E. Debbas, CFA *July 24, 2020*

(A) Diluted EPS. Excl. gain (loss) on disc. ops '05, (6¢), '06, 1¢, nonrec. gains '12, 39¢ net, '15, 27¢, '18, 52¢, '19, 45¢. '18 EPS don't sum due to rounding. Next earnings report due late July. (B) Div'ds historically paid in late Mar., June, Sept. & Dec. ■ Div'd reinvestment plan avail. (C) Incl. def'd charges. In '19: $16.68/sh. (D) In mill. (E) Rate base: Net orig. cost. Rate allowed on com. eq. in MT in '19 (elec.): 9.65%, in '17 (gas): 9.55%, in SD in '15: none spec., in NE in '07: 10.4%, earned on avg. com. eq., '19: 9.0%. Reg. Climate: Below Avg.

Company's Financial Strength	B++
Stock's Price Stability	90
Price Growth Persistence	75
Earnings Predictability	85

OGE ENERGY CORP. NYSE-OGE

RECENT PRICE 32.14 | P/E RATIO 14.9 (Trailing: 14.3 Median: 17.0) | RELATIVE P/E RATIO 0.76 | DIV'D YLD 5.1% | VALUE LINE

TIMELINESS 3 Lowered 3/6/20
SAFETY 2 Lowered 12/18/15
TECHNICAL 3 Lowered 5/1/20
BETA 1.05 (1.00 = Market)

18-Month Target Price Range
Low-High Midpoint (% to Mid)
$25-$62 $44 (35%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	55	(+70%)	18%
Low	40	(+25%)	10%

Institutional Decisions

	3Q2019	4Q2019	1Q2020
to Buy	177	205	176
to Sell	209	185	221
Hld's(000)	132772	133273	128589

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	© VALUE LINE PUB. LLC	23-25
High	18.9	23.1	28.6	30.1	40.0	39.3	36.5	34.2	37.4	41.8	45.8	46.4								
Low	9.9	16.9	20.3	25.1	27.7	32.8	24.2	23.4	32.6	29.6	38.0	23.0								
	27.37	32.83	21.96	20.68	21.77	14.79	19.04	19.96	18.58	14.45	12.30	11.00	11.31	11.32	11.37	11.15	*10.00*	*11.00*	Revenues per sh	*13.25*
	1.87	1.94	2.23	2.39	2.40	2.69	3.01	3.31	3.69	3.46	3.40	3.23	3.31	3.34	3.74	4.02	*4.05*	*4.30*	"Cash Flow" per sh	*5.25*
	.89	.92	1.23	1.32	1.25	1.33	1.50	1.73	1.79	1.94	1.98	1.69	1.69	1.92	2.12	2.24	*2.15*	*2.25*	Earnings per sh [A]	*2.50*
	.67	.67	.67	.68	.70	.71	.73	.76	.80	.85	.95	1.05	1.16	1.27	1.40	1.51	*1.60*	*1.68*	Div'd Decl'd per sh [B] ■	*1.95*
	1.51	1.65	2.67	3.04	4.01	4.37	4.36	6.48	5.85	4.99	2.86	2.74	3.31	4.13	2.87	3.18	*2.90*	*3.65*	Cap'l Spending per sh	*3.75*
	7.14	7.59	8.79	9.16	10.14	10.52	11.73	13.06	14.00	15.30	16.27	16.66	17.24	19.28	20.06	20.69	*18.55*	*19.10*	Book Value per sh [C]	*21.00*
	180.00	181.20	182.40	183.60	187.00	194.00	195.20	196.20	197.60	198.50	199.40	199.70	199.70	199.70	199.70	200.10	*200.00*	*200.00*	Common Shs Outst'g [D]	*200.00*
	14.1	14.9	13.7	13.8	12.4	10.8	13.3	14.4	15.2	17.7	18.3	17.7	17.7	18.3	16.5	19.0	*Bold figures are*		Avg Ann'l P/E Ratio	*19.5*
	.74	.79	.74	.73	.75	.72	.85	.90	.97	.99	.96	.89	.93	.92	.89	1.02	*Value Line*		Relative P/E Ratio	*1.10*
	5.3%	4.9%	4.0%	3.8%	4.5%	5.0%	3.7%	3.1%	2.9%	2.5%	2.6%	3.5%	3.9%	3.6%	4.0%	3.5%	*estimates*		Avg Ann'l Div'd Yield	*4.0%*
	3716.9	3915.9	3671.2	2867.7	2453.1	2196.9	2259.2	2261.1	2270.3	2231.6	*2000*	*2200*	Revenues ($mill)	*2650*
	295.3	342.9	355.0	387.6	395.8	337.6	338.2	384.3	425.5	449.6	*425*	*450*	Net Profit ($mill)	*525*
	34.9%	30.7%	26.0%	24.9%	30.4%	29.2%	30.5%	32.5%	14.5%	7.4%	*13.0%*	*13.0%*	Income Tax Rate	*13.0%*
	5.7%	9.0%	2.7%	2.6%	1.7%	3.7%	6.4%	15.0%	8.3%	1.6%	*1.0%*	*2.0%*	AFUDC % to Net Profit	*2.0%*
	50.8%	51.6%	50.7%	43.1%	45.9%	44.3%	41.1%	41.7%	42.0%	43.6%	*48.5%*	*48.0%*	Long-Term Debt Ratio	*48.5%*
	49.2%	48.4%	49.3%	56.9%	54.1%	55.7%	58.9%	58.3%	58.0%	56.4%	*51.5%*	*52.0%*	Common Equity Ratio	*51.5%*
	4652.5	5300.4	5615.8	5337.2	5999.7	5971.6	5849.6	6600.7	6902.0	7334.7	*7205*	*7320*	Total Capital ($mill)	*8150*
	6464.4	7474.0	8344.8	6672.8	6979.9	7322.4	7696.2	8339.9	8643.8	9044.6	*9235*	*9545*	Net Plant ($mill)	*10325*
	7.8%	7.8%	7.7%	8.6%	7.8%	6.9%	7.0%	7.0%	7.3%	7.1%	*7.0%*	*7.0%*	Return on Total Cap'l	*7.5%*
	12.9%	13.4%	12.8%	12.8%	12.2%	10.2%	9.8%	10.0%	10.6%	10.9%	*11.5%*	*12.0%*	Return on Shr. Equity	*12.5%*
	12.9%	13.4%	12.8%	12.8%	12.2%	10.2%	9.8%	10.0%	10.6%	10.9%	*11.5%*	*12.0%*	Return on Com Equity [E]	*12.5%*
	6.7%	7.7%	7.2%	7.3%	6.5%	4.0%	3.3%	3.5%	3.8%	3.6%	*3.0%*	*3.0%*	Retained to Com Eq	*3.0%*
	48%	43%	44%	43%	47%	61%	67%	64%	64%	67%	*75%*	*75%*	All Div'ds to Net Prof	*74%*

CAPITAL STRUCTURE as of 3/31/20
Total Debt $3570.6 mill **Due in 5 Yrs** $375.0 mill
LT Debt $3195.6 mill **LT Interest** $144.7 mill
(LT interest earned 4.3x)

Leases, Uncapitalized Annual rentals $6.2 mill

Pension Assets-12/19 $530.3 mill
Oblig $616.9 mill

Pfd Stock None

Common Stock 200,169,431 shs

MARKET CAP: $6.4 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2017	2018	2019
% Change Retail Sales (KWH)	-2.2	+6.8	+1.1
Avg Indust Use (MWH)	NA	NA	NA
Avg Indust Revs per KWH (¢)	5.30	4.86	4.69
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	6456	6863	6817
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+1.0	+.9	+1.0
Fixed Charge Cov. (%)	315	292	335

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '17-'19 to '23-'25
Revenues	-5.0%	-5.5%	*2.5%*
"Cash Flow"	4.0%	1.0%	*6.0%*
Earnings	5.0%	2.0%	*3.0%*
Dividends	7.0%	10.0%	*6.0%*
Book Value	7.0%	5.5%	*1.0%*

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	456.0	586.4	716.8	501.9	2261.1
2018	492.7	567.0	698.8	511.8	2270.3
2019	490.0	513.7	755.4	472.5	2231.6
2020	431.3	*450*	*668.7*	*450*	*2000*
2021	*475*	*550*	*700*	*475*	*2200*

Calendar	EARNINGS PER SHARE [A] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.18	.52	.92	.30	1.92
2018	.27	.55	1.02	.27	2.12
2019	.24	.50	1.25	.26	2.24
2020	.23	*.58*	*1.11*	*.23*	*2.15*
2021	*.25*	*.60*	*1.15*	*.25*	*2.25*

Calendar	QUARTERLY DIVIDENDS PAID [B] ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	.275	.275	.275	.3025	1.13
2017	.3025	.3025	.3025	.3325	1.24
2018	.3325	.3325	.3325	.365	1.36
2019	.365	.365	.365	.3875	1.48
2020	.3875	.3875			

BUSINESS: OGE Energy Corp. is a holding company for Oklahoma Gas and Electric Company (OG&E), which supplies electricity to 858,000 customers in Oklahoma (84% of electric revenues) and western Arkansas (8%), wholesale is (8%). Owns 25.5% of Enable Midstream Partners. Electric revenue breakdown: residential, 40%, commercial, 23%; industrial, 10%, oilfield, 9%, other, 18%. Generating sources: gas, 35%; coal, 15%, wind, 5%, purchased, 45%. Fuel costs: 35% of revenues. '19 reported depreciation rate (utility) 2.7%. Has 2,400 employees. Chairman, President and Chief Executive Officer: Sean Trauschke. Incorporated: Oklahoma. Address: 321 North Harvey, P.O. Box 321, Oklahoma City, Oklahoma 73101-0321. Telephone: 405-553-3000. Internet: www.oge.com.

OGE Energy's stake in Enable Midstream Partners has been a drag on its stock price lately. The value of 25.5%-owned Enable, a midstream natural gas master limited partnership, has declined precipitously in 2020 due to depressed prices for gas and oil that have caused producers to reduce their activity. As a result, OGE took a nonrecurring $780 million pretax charge in the first quarter to write down its investment in Enable. So far this year, the price of OGE stock has declined 28%, making this issue one of the worst performers in the electric utility industry. Due to a decline in expected equity income from its stake in Enable, OGE lowered its 2020 share-net guidance from $2.19-$2.31 to $2.08-$2.18. We cut our 2020 and 2021 estimates by $0.10 each year, to $2.15 and $2.25, respectively, to reflect the likelihood of lower equity income from Enable.

Oklahoma Gas and Electric continues to perform well. Management has not changed its expectation for utility income this year, despite the weaker economy. At the start of April, OG&E received a $5.2 million increase in Arkansas under the state's formula rate plan. The utility is asking the Oklahoma commission to approve a plan to recover $810 million in modifications to the electric grid through a rider on customers' bills. A ruling is expected by yearend. There are few direct effects of the coronavirus problem. OG&E will be able to defer these costs for future recovery in Arkansas, and is asking for the same regulatory treatment in Oklahoma.

Finances are solid, even with the weak results at Enable. The aforementioned writedown was a noncash item. Although the distributions OGE gets from Enable have been halved, the company should still have ample cash to fund its capital budget and pay dividends. We still expect a boost in the disbursement later this year. In April, the utility issued $300 million of 10-year notes at 3.25%, which will probably cover its financing needs through the end of 2021.

This stock has an attractive valuation. The dividend yield is well above the utility mean, and 18-month total return potential is strong. Total return prospects to 2023-2025 exceed those of most utility equities.

Paul E. Debbas, CFA *June 12, 2020*

(A) Diluted EPS. Excl. nonrecurring gain (losses): '04, (3¢), '15, (33¢), '17, $1.18, '19, (8¢), '20, ($2.69); gains on discont. ops.: '05, 25¢, '06, 20¢. '18 & '19 EPS don't sum due to rounding. Next earnings report due early Aug. (B) Div'ds historically paid in late Jan., Apr., July, & Oct. ■ Div'd reinvestment plan avail. (C) Incl. deferred charges. In '19: $1.53/sh. (D) In mill., adj. for split. (E) Rate base: Net original cost. Rate allowed on com. eq. in OK in '19: 9.5%, in AR in '18: 9.5%, earned on avg. com. eq., '19: 11.0%. Regulatory Climate: Average

Company's Financial Strength	A
Stock's Price Stability	80
Price Growth Persistence	40
Earnings Predictability	80

OTTER TAIL CORP. NDQ-OTTR

RECENT PRICE 42.00 | P/E RATIO 20.5 (Trailing: 19.8 / Median: 22.0) | RELATIVE P/E RATIO 1.04 | DIV'D YLD 3.6% | VALUE LINE

TIMELINESS 3 Lowered 3/1/19
SAFETY 2 Raised 6/17/16
TECHNICAL 3 Raised 5/8/20
BETA .85 (1.00 = Market)

18-Month Target Price Range

Low-High	Midpoint (% to Mid)
$37-$74	$56 (30%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	60	(+45%)	12%
Low	45	(+5%)	6%

Institutional Decisions

	3Q2019	4Q2019	1Q2020
to Buy	88	85	78
to Sell	61	69	84
Hld's(000)	18133	18484	18228

High	25.4	25.4	23.5	25.3	31.9	32.7	33.4	42.6	48.7	51.9	57.7	56.9
Low	15.5	18.2	17.5	20.7	25.2	26.5	24.8	25.8	35.7	39.0	45.9	31.0

LEGENDS
— 0.61 x Dividends p sh divided by Interest Rate
Relative Price Strength
Options: Yes
Shaded area indicates recession

Target Price Range 2023 | 2024 | 2025

% TOT. RETURN 5/20

	THIS STOCK	VL ARITH.* INDEX
1 yr	-11.5	-1.3
3 yr	16.6	5.2
5 yr	86.6	18.7

Percent shares traded: 9, 6, 3

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	© VALUE LINE PUB. LLC	23-25
30.45	35.59	37.43	41.50	37.06	29.03	31.08	29.86	23.76	24.63	21.48	20.60	20.42	21.47	23.10	22.90	*20.70*	*22.60*	Revenues per sh	*26.50*
2.88	3.35	3.39	3.55	2.81	2.76	2.60	2.36	2.71	3.02	3.09	3.14	3.44	3.70	3.96	4.11	*4.00*	*4.25*	"Cash Flow" per sh	*5.00*
1.50	1.78	1.69	1.78	1.09	.71	.38	.45	1.05	1.37	1.55	1.56	1.60	1.86	2.06	2.17	*2.05*	*2.20*	Earnings per sh [A]	*2.50*
1.10	1.12	1.15	1.17	1.19	1.19	1.19	1.19	1.19	1.19	1.21	1.23	1.25	1.28	1.34	1.40	*1.48*	*1.56*	Div'd Decl'd per sh [B] ■	*1.80*
1.72	2.04	2.35	5.43	7.51	4.95	2.38	2.04	3.20	4.53	4.40	4.23	4.10	3.36	2.66	5.16	*9.30*	*3.40*	Cap'l Spending per sh	*2.75*
14.81	15.80	16.67	17.55	19.14	18.78	17.57	15.83	14.43	14.75	15.39	15.98	17.03	17.62	18.38	19.46	*20.60*	*21.20*	Book Value per sh [C]	*23.25*
28.98	29.40	29.52	29.85	35.38	35.81	36.00	36.10	36.17	36.27	37.22	37.86	39.35	39.56	39.66	40.16	*41.50*	*41.60*	Common Shs Outst'g [D]	*41.50*
17.3	15.4	17.3	19.0	30.1	31.2	55.1	47.5	21.7	21.1	18.8	18.2	20.2	22.1	22.2	23.5	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*20.5*
.91	.82	.93	1.01	1.81	2.08	3.51	2.98	1.38	1.19	.99	.92	1.06	1.11	1.20	1.26			Relative P/E Ratio	*1.15*
4.2%	4.1%	3.9%	3.5%	3.6%	5.4%	5.7%	5.6%	5.2%	4.1%	4.1%	4.3%	3.9%	3.1%	2.9%	2.7%			Avg Ann'l Div'd Yield	*3.5%*
1119.1	1077.9	859.2	893.3	799.3	779.8	803.5	849.4	916.4	919.5	*860*	*940*	Revenues ($mill)	*1115*
13.6	16.4	39.0	50.2	56.9	58.6	62.0	73.9	82.3	86.8	*85.0*	*90.0*	Net Profit ($mill)	*110*
--	14.5%	5.2%	21.3%	22.5%	27.0%	24.5%	25.5%	15.0%	16.7%	*18.0%*	*18.0%*	Income Tax Rate	*18.0%*
6%	3.8%	1.7%	5.6%	3.9%	3.5%	2.2%	2.3%	4.1%	4.9%	*9.0%*	*4.0%*	AFUDC % to Net Profit	*3.0%*
40.2%	44.6%	44.0%	42.1%	46.5%	42.4%	43.0%	41.3%	44.7%	46.9%	*42.0%*	*45.5%*	Long-Term Debt Ratio	*47.0%*
58.4%	54.0%	54.4%	57.9%	53.5%	57.6%	57.0%	58.7%	55.3%	53.1%	*58.0%*	*54.5%*	Common Equity Ratio	*53.0%*
1083.3	1058.9	959.2	924.4	1071.3	1051.0	1175.4	1187.3	1318.9	1471.1	*1480*	*1615*	Total Capital ($mill)	*1850*
1108.7	1077.5	1049.5	1167.0	1268.5	1387.8	1477.2	1539.6	1581.1	1753.8	*2060*	*2115*	Net Plant ($mill)	*2275*
2.7%	3.2%	5.7%	6.8%	6.7%	6.8%	6.5%	7.3%	7.3%	7.0%	*6.5%*	*6.5%*	Return on Total Cap'l	*7.0%*
2.1%	2.8%	7.3%	9.4%	9.9%	9.7%	9.3%	10.6%	11.3%	11.1%	*10.0%*	*10.5%*	Return on Shr. Equity [E]	*11.0%*
2.0%	2.7%	7.3%	9.3%	9.9%	9.7%	9.3%	10.6%	11.3%	11.1%	*10.0%*	*10.5%*	Return on Com Equity	*11.0%*
NMF	NMF	NMF	1.2%	2.2%	2.0%	2.1%	3.3%	4.0%	4.0%	*3.0%*	*3.0%*	Retained to Com Eq	*3.5%*
NMF	NMF	113%	87%	78%	79%	78%	69%	65%	64%	*72%*	*70%*	All Div'ds to Net Prof	*69%*

CAPITAL STRUCTURE as of 3/31/20
Total Debt $744.5 mill **Due in 5 Yrs** $190.3 mill
LT Debt $724.3 mill **LT Interest** $33.8 mill
(LT interest earned 4.1x)

Leases, Uncapitalized Annual rentals $22.3 mill
Pension Assets-12/19 $329.8 mill
Oblig $384.8 mill

Pfd Stock None

Common Stock 40,416,779 shs
as of 4/30/20

MARKET CAP: $1.7 billion (Mid Cap)

ELECTRIC OPERATING STATISTICS

	2017	2018	2019
% Change Retail Sales (KWH)	+1.4	+3.4	-.2
Avg Indust Use (MWH)	NA	NA	NA
Avg Indust Revs per KWH (¢)	6.26	5.97	NA
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Winter (Mw)	917	912	NA
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr end)	+.5	+.2	+.1
Fixed Charge Cov. (%)	608	409	407

ANNUAL RATES of change (per sh)

	Past 10 Yrs	Past 5 Yrs	Est'd '17-'19 to '23-'25
Revenues	-4.5%	-.5%	*3.0%*
"Cash Flow"	2.5%	6.0%	*4.0%*
Earnings	5.5%	9.0%	*3.5%*
Dividends	1.5%	2.5%	*5.0%*
Book Value	--	4.5%	*4.0%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	214.1	212.1	216.5	206.7	849.4
2018	241.2	226.3	227.7	221.2	916.4
2019	246.0	229.2	228.6	215.7	919.5
2020	234.7	*200*	*215*	*210.3*	*860*
2021	*250*	*235*	*235*	*220*	*940*

EARNINGS PER SHARE [A]

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.49	.42	.45	.50	1.86
2018	.66	.47	.58	.35	2.06
2019	.66	.39	.62	.51	2.17
2020	.60	*.35*	*.60*	*.50*	*2.05*
2021	*.65*	*.40*	*.65*	*.50*	*2.20*

QUARTERLY DIVIDENDS PAID [B] ■

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	.3125	.3125	.3125	.3125	1.25
2017	.32	.32	.32	.32	1.28
2018	.335	.335	.335	.335	1.34
2019	.35	.35	.35	.35	1.40
2020	.37	.37			

BUSINESS: Otter Tail Corporation is the parent of Otter Tail Power Company, which supplies electricity to 132,000 customers in Minnesota (52% of retail electric revenues), North Dakota (38%), and South Dakota (10%). Electric rev. breakdown: residential, 32%, commercial & farms, 36%, industrial, 30%, other, 2%. Generating sources: coal, 45%, wind & hydro, 8%, other, 1%, purchased, 46%. Fuel costs: 14% of revenues. Has operations in manufacturing and plastics (38% of '18 income). '19 reported deprec. rate (utility): 2.8%. Has 2,300 employees. Chairman: Nathan I. Partain. President & CEO: Charles S. MacFarlane. Inc.: Minnesota. Address: 215 South Cascade St., P.O. Box 496, Fergus Falls, Minnesota 56538-0496. Tel.: 866-410-8780. Internet: www.ottertail.com.

Otter Tail Corporation cut its earnings guidance for 2020. This is due to the effects of the weak economy, which is especially hurting the Manufacturing segment. Many customers of this division's businesses have had to close their facilities temporarily. Backlog is down, too. The division contributed $0.32 a share to the bottom line in 2019, and when management issued its 2020 earnings guidance of $2.22-$2.37 a share in February, it expected profits of $0.31-$0.35 a share from Manufacturing. In May, this was slashed to $0.14-$0.23 a share. As for Otter Tail Power, the economic troubles are hurting many of its industrial customers, and the suspension of shutoffs for nonpayment will cause bad-debt expense to rise. In response to these difficulties, the company is cutting costs. But there is only so much this can do, so Otter Tail reduced its 2020 earnings target to $2.00-$2.25 a share.

We lowered our 2020 and 2021 share-earnings estimates by $0.20 and $0.15, respectively. Demand from Otter Tail's customers isn't likely to bounce back to normal even as the economy continues to recover next year.

Otter Tail Power is building some significant capital projects. A $258 million, 150-megawatt wind project, the largest project in the company's history, is on budget but slightly behind schedule. An in-service date by yearend is still achievable, but there is an increased risk of supply-chain and labor-related delays due to coronavirus. This is significant because the company might lose production tax credits if the project is not completed by yearend. Otter Tail is also building a $158 million, 245-mw gas-fired facility. Completion is expected in late 2020 or early 2021. The company is financing these expenditures with a combination of long-term debt and common equity.

The reduction in earnings guidance didn't affect the stock price much. It came as no surprise to Wall Street that the economic troubles were hurting Otter Tail, especially its Manufacturing division. The price had already dropped significantly, and is down 18% in 2020. The dividend yield is about average for a utility. Total return potential is better for the 18-month span than for the 2023-2025 period.

Paul E. Debbas, CFA *June 12, 2020*

(A) Dil. EPS. Excl. nonrec. gains (loss) '10, (44¢), '11, 26¢, '13, 2¢, gains (losses) from disc. ops: '04, 8¢, '05, 33¢, '06, 1¢, '11, ($1.11), '12, ($1.22), '13, 2¢, '14, 2¢, '15, 2¢, '16, 1¢, '17, 1¢. '19 EPS don't sum due to rndg. Next egs. rept. due early Aug. (B) Div'ds histor. pd. in early Mar., Jun., Sept., & Dec. ■ Div'd reinv. plan avail. (C) Incl. intang. In '19: $4.67/sh. (D) In mill. (E) Rate all'd on com. eq. in MN in '17: 9.41%, in ND in '18: 9.77%, in SD in '19: 8.75%, earn. avg. com. eq., '19: 11.6%. Reg. Clim.: MN, ND, Avg., SD, Above Avg.

Company's Financial Strength	A
Stock's Price Stability	95
Price Growth Persistence	65
Earnings Predictability	85

PINNACLE WEST NYSE-PNW

RECENT PRICE 78.91 | P/E RATIO 16.6 (Trailing: 16.1 Median: 16.0) | RELATIVE P/E RATIO 0.81 | DIV'D YLD 4.1% | VALUE LINE

TIMELINESS 3 Lowered 8/30/19
SAFETY 1 Raised 5/3/13
TECHNICAL 4 Lowered 6/19/20
BETA .85 (1.00 = Market)

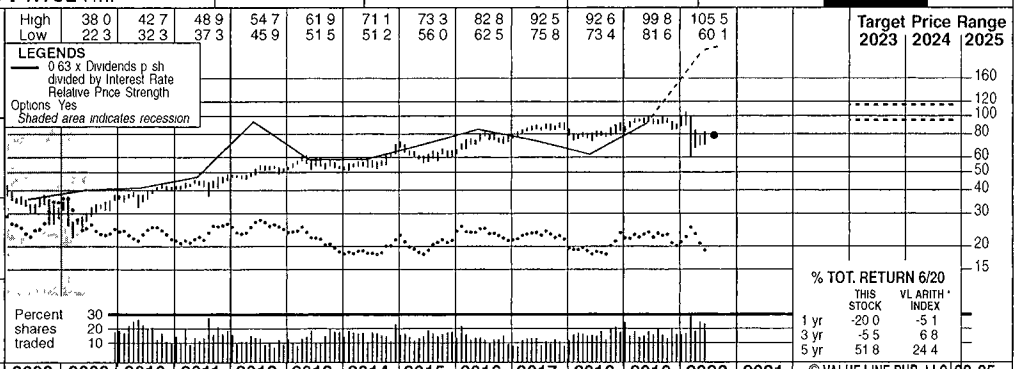
18-Month Target Price Range
Low-High Midpoint (% to Mid)
$60-$134 $97 (25%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	115	(+45%)	13%
Low	95	(+20%)	9%

Institutional Decisions

	3Q2019	4Q2019	1Q2020
to Buy	245	221	207
to Sell	225	251	277
Hld's(000)	98235	98387	95773



2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	© VALUE LINE PUB. LLC	23-25
31.59	30.16	34.03	35.07	33.37	32.50	30.01	29.67	30.09	31.35	31.58	31.50	31.42	31.90	32.93	30.87	*27.05*	*28.75*	Revenues per sh	*31.25*
6.93	5.76	9.70	9.29	8.13	8.08	6.85	7.52	7.92	8.15	8.09	9.09	9.39	9.79	11.41	11.13	*11.30*	*12.00*	"Cash Flow" per sh	*14.00*
2.58	2.24	3.17	2.96	2.12	2.26	3.08	2.99	3.50	3.66	3.58	3.92	3.95	4.43	4.54	4.77	*4.75*	*5.05*	Earnings per sh [A]	*5.75*
1.83	1.93	2.03	2.10	2.10	2.10	2.10	2.10	2.67	2.23	2.33	2.44	2.56	2.70	2.87	3.04	*3.22*	*3.41*	Div'd Decl'd per sh [B] ■	*4.00*
5.86	6.39	7.59	9.37	9.46	7.64	7.03	8.26	8.24	9.36	8.38	9.84	11.64	12.80	10.73	10.76	*12.10*	*15.20*	Cap'l Spending per sh	*11.75*
32.14	34.57	34.48	35.15	34.16	32.69	33.86	34.98	36.20	38.07	39.50	41.30	43.15	44.80	46.59	48.30	*49.75*	*51.25*	Book Value per sh [C]	*57.25*
91.79	99.08	99.96	100.49	100.89	101.43	108.77	109.25	109.74	110.18	110.57	110.98	111.34	111.75	112.10	112.44	*112.70*	*113.00*	Common Shs Outst'g [D]	*118.00*
15.8	19.2	13.7	14.9	16.1	13.7	12.6	14.6	14.3	15.3	15.9	16.0	18.7	19.3	17.8	19.4	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*18.5*
.83	1.02	.74	.79	.97	.91	.80	.92	.91	.86	.84	.81	.98	.97	.96	1.05			Relative P/E Ratio	*1.05*
4.5%	4.5%	4.7%	4.8%	6.2%	6.8%	5.4%	4.8%	5.3%	4.0%	4.1%	3.9%	3.5%	3.2%	3.5%	3.3%			Avg Ann'l Div'd Yield	*3.8%*
3263.6	3241.4	3301.8	3454.6	3491.6	3495.4	3498.7	3565.3	3691.2	3471.2	*3050*	*3250*	Revenues ($mill)	*3700*
330.4	328.2	387.4	406.1	397.6	437.3	442.0	497.8	511.0	538.3	*540*	*570*	Net Profit ($mill)	*680*
31.9%	34.0%	36.2%	34.4%	34.2%	34.3%	33.9%	32.5%	20.2%	20.2%	*14.0%*	*14.0%*	Income Tax Rate	*14.0%*
11.7%	12.8%	9.7%	10.0%	11.6%	11.8%	14.1%	13.9%	15.2%	9.3%	*7.0%*	*12.0%*	AFUDC % to Net Profit	*7.0%*
45.3%	44.1%	44.6%	40.0%	41.0%	43.0%	45.6%	48.9%	47.0%	47.1%	*53.0%*	*53.0%*	Long-Term Debt Ratio	*53.5%*
54.7%	55.9%	55.4%	60.0%	59.0%	57.0%	54.4%	51.1%	53.0%	52.9%	*47.0%*	*47.0%*	Common Equity Ratio	*46.5%*
6729.1	6840.9	7171.9	6990.9	7398.7	8046.3	8825.4	9796.4	9861.1	10263	*11900*	*12375*	Total Capital ($mill)	*14525*
9578.8	9962.3	10396	10889	11194	11809	12714	13445	14030	14523	*15150*	*16100*	Net Plant ($mill)	*17900*
6.5%	6.4%	6.8%	7.1%	6.4%	6.4%	6.0%	6.1%	6.2%	6.3%	*5.5%*	*5.5%*	Return on Total Cap'l	*5.5%*
9.0%	8.6%	9.8%	9.7%	9.1%	9.5%	9.2%	9.9%	9.8%	9.9%	*9.5%*	*10.0%*	Return on Shr. Equity	*10.0%*
9.0%	8.6%	9.8%	9.7%	9.1%	9.5%	9.2%	9.9%	9.8%	9.9%	*9.5%*	*10.0%*	Return on Com Equity [E]	*10.0%*
3.1%	2.8%	4.1%	4.1%	3.5%	3.9%	3.5%	4.2%	3.9%	3.8%	*3.0%*	*3.0%*	Retained to Com Eq	*3.0%*
66%	68%	58%	58%	62%	59%	62%	58%	60%	61%	*67%*	*68%*	All Div'ds to Net Prof	*70%*

CAPITAL STRUCTURE as of 3/31/20
Total Debt $6046.3 mill **Due in 5 Yrs** $1578.1 mill
LT Debt $4833.3 mill **LT Interest** $198.7 mill
Incl $13.4 mill Palo Verde sale leaseback lessor notes
(LT interest earned 3.2x)
Leases, Uncapitalized Annual rentals $14.7 mill
Pension Assets-12/19 $3318.4 mill
Oblig $3613.1 mill
Pfd Stock None

Common Stock 112,493,458 shs
as of 5/1/20
MARKET CAP: $8.9 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2017	2018	2019
% Change Retail Sales (KWH)	--	-3	-3
Avg Indust Use (MWH)	620	662	714
Avg Indust Revs per KWH (¢)	8.34	8.40	7.88
Capacity at Peak (Mw)	8438	8643	8241
Peak Load, Summer (Mw)	7363	7320	7115
Annual Load Factor (%)	46.3	47.0	47.1
% Change Customers (yr-end)	+1.8	+2.0	+2.0
Fixed Charge Cov. (%)	425	318	286

ANNUAL RATES of change (per sh)

	Past 10 Yrs	Past 5 Yrs.	Est'd '17-'19 to '23-'25
Revenues	-.5%	5%	*-.5%*
"Cash Flow"	2.5%	6.0%	*4.5%*
Earnings	6.5%	5.0%	*4.0%*
Dividends	3.0%	3.5%	*5.5%*
Book Value	3.0%	4.0%	*3.5%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	677.7	944.6	1183.3	759.7	3565.3
2018	692.7	974.1	1268.0	756.4	3691.2
2019	740.5	869.5	1190.8	670.4	3471.2
2020	661.9	*700*	*1088.1*	*600*	*3050*
2021	*725*	*775*	*1100*	*625*	*3250*

EARNINGS PER SHARE [A]

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.21	1.49	2.46	.27	4.43
2018	.03	1.48	2.80	.23	4.54
2019	.16	1.28	2.77	.57	4.77
2020	.27	*1.23*	*2.95*	*.30*	*4.75*
2021	*.10*	*1.45*	*3.15*	*.35*	*5.05*

QUARTERLY DIVIDENDS PAID [B] ■

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	.625	.625	.625	.655	2.53
2017	.655	.655	.655	.695	2.66
2018	.695	.695	.695	.7375	2.82
2019	.7375	.7375	.7375	.7825	3.00
2020	.7825	.7825			

BUSINESS: Pinnacle West Capital Corporation is a holding company for Arizona Public Service Company (APS), which supplies electricity to 1.3 million customers in most of Arizona, except about half of the Phoenix metro area, the Tucson metro area, and Mohave County in northwestern Arizona. Discontinued SunCor real estate subsidiary in '10. Electric revenue breakdown: residential, 51%, commercial, 38%, industrial, 5%, other, 6%. Generating sources: nuclear, 28%, gas & other, 28%, coal, 24%, purchased, 20%. Fuel costs: 30% of revenues '19. Reported deprec. rate: 2.8%. Has 6,200 employees. Chairman, President & CEO: Jeffrey B. Guldner. Inc.: AZ. Address: 400 North Fifth St., P.O. Box 53999, Phoenix, AZ 85072-3999. Tel.: 602-250-1000. Internet: www.pinnaclewest.com.

The rate case of Pinnacle West's utility subsidiary probably won't be resolved until 2021. Last year, Arizona Public Service requested an increase of $184 million (5.6%), based on a 10.15% return on equity and a 54.7% common-equity ratio. Among other things, the utility wants to place a $390 million environmental upgrade to a coal-fired plant in rates and get some regulatory mechanisms that would defer for future recovery increases in certain expenses, such as property taxes. When APS filed the application in the fall of 2019, the hope was to get an order as early as December 1, 2020. However, the proceedings have been delayed long enough so that the company can't estimate when in 2021 the decision is likely to come. We were already not expecting any rate relief in our 2020 earnings estimate, but the delay has added uncertainty to our 2021 estimate.

Management reiterated its 2020 earnings guidance of $4.75-$4.95 a share upon reporting first-quarter results in May. This is despite the company's disclosure that the reduction in kilowatt-hour sales stemming from the weak economy hurt the bottom line by $0.10 a share, compared with the original expectation, from March 13th through April 30th. We note that Pinnacle West posted a higher-than-usual March-period profit thanks to tax credits. Thus, we did not cut our 2020 estimate of $4.75 a share. However . . .

We trimmed our 2021 estimate by $0.10 a share. We are concerned that any rate relief the utility receives from the pending rate application will come later than we had expected. Our revised figure of $5.05 a share would still produce a solid 6% increase over our estimated 2020 tally.

Finances are solid. The company's earned ROE has been consistent for the past several years. The fixed-charge coverage and common-equity ratio are healthy. Pinnacle West merits a Financial Strength rating of A+.

This stock has appeal for conservative accounts stressing income. The Safety rank is 1 (Highest). The dividend yield is above average, even for a utility. Total return potential is attractive for the 18-month period and respectable (on a risk-adjusted basis) for the 3- to 5-year span.

Paul E. Debbas, CFA *July 24, 2020*

(A) Diluted EPS. Excl. nonrec. gain (loss): '09, ($1.45), '17, 8¢; gains (losses) from discont ops: '05, (36¢), '06, 10¢, '08, 28¢, '09, (13¢), '10, 18¢, '11, 10¢, '12, (5¢). '19 EPS don't sum due to rounding. Next earnings report due early Aug. (B) Div'ds historically paid in early Mar., June, Sept., & Dec. There were 5 declarations in '12. ■ Div'd reinvestment plan avail. (C) Incl deferred charges. In '19: $14.00/sh. (D) In mill. (E) Rate base: Fair value. Rate allowed on com. eq. in '17: 10.0%; earned on avg. com. eq., '19: 10.1%. Regulatory Climate: Average

Company's Financial Strength	A+
Stock's Price Stability	90
Price Growth Persistence	70
Earnings Predictability	95

PNM RESOURCES NYSE-PNM

RECENT PRICE 38.86 | P/E RATIO 20.5 (Trailing: 20.9 Median: 18.0) | RELATIVE P/E RATIO 1.00 | DIV'D YLD 3.2% | VALUE LINE

TIMELINESS 3 Lowered 4/24/20
SAFETY 3 Lowered 5/9/08
TECHNICAL 3 Raised 7/24/20
BETA .90 (1.00 = Market)

18-Month Target Price Range
Low-High Midpoint (% to Mid)
$29-$75 $52 (35%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	55	(+40%)	12%
Low	35	(-10%)	1%

Institutional Decisions

	3Q2019	4Q2019	1Q2020
to Buy	116	135	110
to Sell	130	116	144
Hld's(000)	72521	73262	79315

High 13.1 14.0 19.2 22.5 24.5 31.6 31.2 36.2 46.0 45.3 53.0 56.1
Low 5.9 10.8 12.8 17.3 20.1 23.5 24.4 29.2 33.3 33.8 39.7 27.1

LEGENDS
0.94 x Dividends p sh divided by Interest Rate
Relative Price Strength
Options Yes
Shaded area indicates recession

Target Price Range 2023 2024 2025: 128, 96, 80, 64, 48, 40, 32, 24, 16, 12

Percent shares traded: 24, 16, 8

% TOT RETURN 6/20

	THIS STOCK	VL ARITH* INDEX
1 yr	-23.0	-5.1
3 yr	7.9	6.8
5 yr	77.5	24.4

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	© VALUE LINE PUB. LLC	23-25
26.54	30.19	32.25	24.92	22.65	19.01	19.31	21.35	16.85	17.42	18.03	18.07	17.11	18.14	18.04	18.30	*16.30*	*16.90*	Revenues per sh	*18.00*
3.14	3.56	3.57	2.54	1.76	2.32	2.67	3.18	3.39	3.52	4.09	4.28	4.51	5.30	5.13	6.07	*5.45*	*6.15*	"Cash Flow" per sh	*7.25*
1.43	1.56	1.72	.76	.11	.58	.87	1.08	1.31	1.41	1.45	1.48	1.46	1.92	1.66	2.28	*1.90*	*2.25*	Earnings per sh A	*2.75*
.63	.79	.86	.91	.61	.50	.50	.50	.58	.68	.76	.82	.90	.99	1.09	1.18	*1.24*	*1.30*	Div'd Decl'd per sh B ■ †	*1.50*
2.25	3.07	4.04	5.94	3.99	3.32	3.25	4.10	3.88	4.37	5.78	7.01	7.53	6.28	6.29	7.74	*9.95*	*11.55*	Cap'l Spending per sh	*6.00*
18.19	18.70	22.09	22.03	18.89	18.90	17.60	19.62	20.05	20.87	22.39	20.78	21.04	21.28	21.20	21.08	*23.50*	*24.45*	Book Value per sh C	*29.25*
60.46	68.79	76.65	76.81	86.53	86.67	86.67	79.65	79.65	79.65	79.65	79.65	79.65	79.65	79.65	79.65	*85.83*	*85.83*	Common Shs Outst'g D	*92.00*
15.0	17.4	15.6	35.6	NMF	18.1	14.0	14.5	15.0	16.1	18.7	18.7	22.4	20.4	23.4	21.1	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*16.5*
.79	.93	.84	1.89	NMF	1.21	.89	.91	.95	.90	.98	.94	1.18	1.03	1.26	1.14			Relative P/E Ratio	*.90*
2.9%	2.9%	3.2%	3.4%	4.9%	4.8%	4.1%	3.2%	3.0%	3.0%	2.8%	3.0%	2.8%	2.5%	2.8%	2.5%			Avg Ann'l Div'd Yield	*3.3%*
1673.5	1700.6	1342.4	1387.9	1435.9	1439.1	1363.0	1445.0	1436.6	1457.6	*1400*	*1450*	Revenues ($mill)	*1650*
80.5	97.1	106.1	114.0	116.8	118.8	117.4	154.4	133.4	182.8	*170*	*210*	Net Profit ($mill)	*265*
32.6%	38.8%	31.4%	31.6%	34.8%	36.9%	32.4%	33.0%	13.8%	9.4%	*23.0%*	*23.0%*	Income Tax Rate	*23.0%*
7.1%	8.7%	7.1%	1.3%	10.7%	17.0%	11.0%	11.9%	14.5%	9.2%	*12.0%*	*10.0%*	AFUDC % to Net Profit	*7.0%*
50.4%	51.5%	50.9%	50.0%	47.8%	54.1%	55.7%	56.1%	61.1%	59.8%	*48.5%*	*54.0%*	Long-Term Debt Ratio	*50.5%*
49.2%	48.1%	48.7%	49.7%	51.9%	45.5%	44.0%	43.6%	38.6%	39.9%	*51.0%*	*46.0%*	Common Equity Ratio	*49.0%*
3100.3	3245.6	3277.9	3344.0	3437.1	3633.3	3806.8	3887.5	4370.0	4207.7	*3950*	*4575*	Total Capital ($mill)	*5475*
3444.4	3627.1	3746.5	3933.9	4270.0	4535.4	4904.7	4980.2	5234.6	5466.0	*6005*	*6660*	Net Plant ($mill)	*7500*
4.2%	4.5%	5.1%	5.2%	5.1%	4.8%	4.7%	5.3%	4.3%	5.8%	*5.5%*	*5.5%*	Return on Total Cap'l	*6.0%*
5.2%	6.2%	6.6%	6.8%	6.5%	7.1%	7.0%	9.0%	7.8%	10.8%	*7.5%*	*9.0%*	Return on Shr. Equity	*9.5%*
5.2%	6.2%	6.6%	6.8%	6.5%	7.1%	7.0%	9.1%	7.9%	10.9%	*7.5%*	*9.0%*	Return on Com Equity E	*9.5%*
2.2%	3.3%	3.8%	3.8%	3.2%	3.3%	2.8%	4.5%	2.9%	5.4%	*2.5%*	*4.0%*	Retained to Com Eq	*4.5%*
57%	47%	43%	45%	51%	54%	61%	51%	64%	51%	*67%*	*58%*	All Div'ds to Net Prof	*54%*

CAPITAL STRUCTURE as of 3/31/20
Total Debt $3308.9 mill **Due in 5 Yrs** $1778.9 mill
LT Debt $2468.7 mill **LT Interest** $112.3 mill
(LT interest earned 2.7x)
Leases, Uncapitalized Annual rentals $30.7 mill
Pension Assets-12/19 $590.8 mill
Oblig $671.3 mill
Pfd Stock $11.5 mill **Pfd Div'd** $.5 mill
115,293 shs 4.58%, $100 par without mandatory redemption Sinking fund began 2/1/84

Common Stock 79,653,624 shs
as of 5/1/20
MARKET CAP: $3.1 billion (Mid Cap)

ELECTRIC OPERATING STATISTICS

	2017	2018	2019
% Change Retail Sales (KWH)	+.3	+7.3	+5.0
Avg Indust Use (MWH)	NA	NA	NA
Avg Indust Revs per KWH (¢)	NA	NA	NA
Capacity at Peak (Mw)	2580	2661	2761
Peak Load, Summer (Mw)	1843	1885	1937
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+.8	+1.1	NA
Fixed Charge Cov. (%)	243	218	228

ANNUAL RATES

of change (per sh)	Past 10 Yrs	Past 5 Yrs	Est'd '17-'19 to '23-'25
Revenues	-2.0%	1.0%	*Nil*
"Cash Flow"	9.5%	8.5%	*4.5%*
Earnings	15.0%	7.0%	*6.0%*
Dividends	5.0%	10.0%	*5.5%*
Book Value	5%	--	*5.5%*

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	330.2	362.3	419.9	332.6	1445.0
2018	317.9	352.3	422.7	343.7	1436.6
2019	349.7	330.2	433.6	344.1	1457.6
2020	333.6	*320*	*415*	*331.4*	*1400*
2021	*345*	*330*	*430*	*345*	*1450*

EARNINGS PER SHARE A

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.29	.47	.92	.25	1.92
2018	.19	.48	1.09	d.10	1.66
2019	.23	.36	1.29	.40	2.28
2020	d.19	*.52*	*1.24*	*.33*	*1.90*
2021	*.18*	*.47*	*1.30*	*.30*	*2.25*

QUARTERLY DIVIDENDS PAID B ■ †

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	.22	.22	.22	.22	.88
2017	.2425	.2425	.2425	.2425	.97
2018	.265	.265	.265	.265	1.06
2019	.29	.29	.29	.29	1.16
2020	3075	.3075			

BUSINESS: PNM Resources, Inc. is a holding company with two regulated electric utilities. Public Service Company of New Mexico (PNM) serves 532,000 customers in north central New Mexico, incl. Albuquerque and Santa Fe. Texas-New Mexico Power Company (TNMP) transmits and distributes power to 257,000 customers in Texas. Electric revenue breakdown: residential, 40%, commercial, 35%, industrial, 6%, other, 19%. Generating sources not available. Fuel costs: 28% of revenues '19. Reported deprec. rates: 2.5%-7.9%. Has 1,700 employees. Chairman, President & CEO: Patricia K. Collawn. Incorporated: New Mexico. Address: 414 Silver Ave. SW, Albuquerque, New Mexico 87102-3289. Telephone: 505-241-2700. Internet: www.pnmresources.com.

PNM Resources' utility subsidiary in New Mexico delayed the filing of a general rate case, but there are still some regulatory matters pending. Public Service of New Mexico had planned to file an application in the second quarter, but decided not to do so due to the state of the economy. PNM did request a regulatory mechanism that would decouple revenues and volume for residential and small commercial customers. Currently, the fixed charges billed to these users aren't high enough to reflect the fixed costs of serving them. The company expects an order by yearend. By October 1, the New Mexico commission is expected to rule on PNM's plan to replace the capacity of a coal-fired facility that is scheduled for a shutdown (well before the end of its useful life). The utility would build 280 megawatts of gas-fired capacity and 70 mw of battery storage, a total investment of $278 million. The regulators have already approved the issuance of up to $361 million of securitized bonds so that PNM can recover the cost of the plant.

We raised our 2020 earnings estimate by $0.10 a share. Although kilowatt-hour sales declines stemming from the recession are hurting the company, PNM benefited from hotter-than-normal weather in the second quarter. The company has also cut certain expenses, such as executive travel. We are sticking with our 2021 estimate of $2.25 a share.

The company's TNMP subsidiary in Texas received some rate relief. Each year, TNMP gets revenues to recover transmission and distribution expenditures. In March, the utility was granted $7.8 million for transmission costs, and another such filing was expected this month. For distribution, TNMP reached a settlement calling for a $14.3 million increase, effective September 1st.

The share count will increase, probably in late 2020. In early 2020, PNM Resources raised $290 million through a forward sale of 6.18 million common shares.

Although the stock price has declined 23% this year, the dividend yield is still below the utility mean. The equity offers good total return potential for the next 18 months, but not for the period to 2023-2025.

Paul E. Debbas, CFA *July 24, 2020*

(A) Dil. EPS. Excl. nonrec. gain (losses): '08, ($3.77); '10, ($1.36); '11, 88¢; '13, (16¢); '15, ($1.28); '17, (92¢); '18, (59¢); '19, ($1.31). Excl. gains from disc. ops: '08, 42¢; '09, 78¢; '17 EPS don't sum due to rounding. Next egs. report due late July. (B) Div'ds paid mid-Feb., May, Aug., & Nov. ■ Div'd reinv. plan avail. (C) Incl. intang. In '19: $11.81/sh. (D) In mill., adj. for split. (E) Rate base: net orig. cost. Rate all'd: on com. eq. in NM in '18: 9.575%, in TX in '11: 10.125%, earned on avg. com. eq., '19: 10.2%. Regulatory Climate: NM, Below Avg.; TX, Avg.

Company's Financial Strength	B+
Stock's Price Stability	80
Price Growth Persistence	90
Earnings Predictability	70

PORTLAND GENERAL NYSE-POR

RECENT PRICE 42.31 | P/E RATIO 18.4 (Trailing: 17.1 Median: 17.0) | RELATIVE P/E RATIO 0.89 | DIV'D YLD 3.8% | VALUE LINE

TIMELINESS 3 Lowered 6/12/20
SAFETY 2 Raised 5/4/12
TECHNICAL 3 Lowered 6/12/20
BETA .85 (1.00 = Market)

18-Month Target Price Range
Low-High Midpoint (% to Mid)
$34-$78 $56 (30%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	60	(+40%)	12%
Low	45	(+5%)	6%

Institutional Decisions

	3Q2019	4Q2019	1Q2020
to Buy	151	160	132
to Sell	157	159	197
Hld's(000)	84892	86645	86455

High	21.4	22.7	26.0	28.1	33.3	40.3	41.0	45.2	50.1	50.4	58.4	63.1
Low	13.5	17.5	21.3	24.3	27.4	29.0	33.0	35.3	42.4	39.0	44.0	37.8

LEGENDS
0.73 x Dividends p sh divided by Interest Rate
Relative Price Strength
Options Yes
Shaded area indicates recession

Percent shares traded 21 14 7

Target Price Range 2023 | 2024 | 2025
128 96 80 64 48 40 32 24 16 12

% TOT. RETURN 6/20

	THIS STOCK	VL ARITH* INDEX
1 yr	-20.3	-5.1
3 yr	0.5	6.8
5 yr	47.1	24.4

2004	2005F	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	© VALUE LINE PUB. LLC	23-25
--	23.14	24.32	27.87	27.89	23.99	23.67	24.06	23.89	23.18	24.29	21.38	21.62	22.54	22.30	23.75	*23.45*	*24.55*	Revenues per sh	*27.25*
--	4.75	4.64	5.21	4.71	4.07	4.82	4.96	5.15	4.93	6.08	5.37	5.78	6.16	6.65	6.97	*7.05*	*7.55*	"Cash Flow" per sh	*9.00*
--	1.02	1.14	2.33	1.39	1.31	1.66	1.95	1.87	1.77	2.18	2.04	2.16	2.29	2.37	2.39	*2.30*	*2.55*	Earnings per sh A	*3.00*
--	--	68	93	97	1.01	1.04	1.06	1.08	1.10	1.12	1.18	1.26	1.34	1.43	1.52	*1.54*	*1.62*	Div'd Decl'd per sh B ■ †	*1.95*
--	4.08	5.94	7.28	6.12	9.25	5.97	3.98	4.01	8.40	12.87	6.73	6.57	5.77	6.67	6.78	*8.50*	*6.45*	Cap'l Spending per sh	*6.00*
--	19.15	19.58	21.05	21.64	20.50	21.14	22.07	22.87	23.30	24.43	25.43	26.35	27.11	28.07	28.99	*29.70*	*30.65*	Book Value per sh C	*33.75*
--	62.50	62.50	62.53	62.58	75.21	75.32	75.36	75.56	78.09	78.23	88.79	88.95	89.11	89.27	89.39	*89.55*	*89.65*	Common Shs Outst'g D	*90.00*
--	--	23.4	11.9	16.3	14.4	12.0	12.4	14.0	16.9	15.3	17.7	19.1	20.0	18.4	22.3	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*17.0*
--	--	1.26	.63	.98	.96	.76	.78	.89	.95	.81	.89	1.00	1.01	.99	1.21			Relative P/E Ratio	*.95*
--	--	2.5%	3.3%	4.3%	5.4%	5.2%	4.4%	4.1%	3.7%	3.3%	3.3%	3.1%	2.9%	3.3%	2.8%			Avg Ann'l Div'd Yield	*3.8%*
						1783.0	1813.0	1805.0	1810.0	1900.0	1898.0	1923.0	2009.0	1991.0	2123.0	*2100*	*2200*	Revenues ($mill)	*2450*
						125.0	147.0	141.0	137.0	175.0	172.0	193.0	204.0	212.0	214.0	*210*	*230*	Net Profit ($mill)	*275*
						30.5%	28.3%	31.4%	23.2%	26.0%	20.7%	20.6%	25.3%	7.4%	11.2%	*11.0%*	*11.0%*	Income Tax Rate	*11.0%*
						17.6%	5.4%	7.1%	14.6%	33.7%	19.8%	16.6%	8.8%	8.0%	7.0%	*10.0%*	*7.0%*	AFUDC % to Net Profit	*5.0%*
						53.0%	49.6%	47.1%	51.3%	52.7%	47.8%	48.4%	50.1%	46.5%	51.3%	*52.5%*	*53.5%*	Long-Term Debt Ratio	*52.5%*
						47.0%	50.4%	52.9%	48.7%	47.3%	52.2%	51.6%	49.9%	53.5%	48.7%	*47.5%*	*46.5%*	Common Equity Ratio	*47.5%*
						3390.0	3298.0	3264.0	3735.0	4037.0	4329.0	4544.0	4842.0	4684.0	5323.0	*5615*	*5905*	Total Capital ($mill)	*6400*
						4133.0	4285.0	4392.0	4880.0	5679.0	6012.0	6434.0	6741.0	6887.0	7161.0	*7495*	*7630*	Net Plant ($mill)	*7725*
						5.4%	6.2%	5.9%	5.1%	5.8%	5.4%	5.6%	5.5%	5.8%	5.1%	*5.0%*	*5.0%*	Return on Total Cap'l	*5.5%*
						7.9%	8.8%	8.2%	7.5%	9.2%	7.6%	8.2%	8.4%	8.5%	8.3%	*8.0%*	*8.5%*	Return on Shr. Equity	*9.0%*
						7.9%	8.8%	8.2%	7.5%	9.2%	7.6%	8.2%	8.4%	8.5%	8.3%	*8.0%*	*8.5%*	Return on Com Equity E	*9.0%*
						3.0%	4.1%	3.5%	2.9%	4.6%	3.3%	3.5%	3.6%	3.5%	3.1%	*2.5%*	*3.0%*	Retained to Com Eq	*3.0%*
						62%	54%	57%	61%	50%	56%	57%	58%	59%	63%	*66%*	*63%*	All Div'ds to Net Prof	*64%*

CAPITAL STRUCTURE as of 3/31/20
Total Debt $2654 mill **Due in 5 Yrs** $336 mill
LT Debt $2478 mill **LT Interest** $124 mill
Incl. $135 mill capitalized leases
(LT interest earned 3.0x)
Leases, Uncapitalized Annual rentals $8 mill
Pension Assets-12/19 $695 mill
Oblig $905 mill
Pfd Stock None

Common Stock 89,488,773 shs
as of 4/20/20

MARKET CAP: $3.8 billion (Mid Cap)

ELECTRIC OPERATING STATISTICS

	2017	2018	2019
% Change Retail Sales (KWH)	+3.9	-2.5	+1.2
Avg Indust Use (MWH)	16041	16207	17827
Avg Indust Revs per KWH (¢)	4.94	4.79	4.75
Capacity at Peak (Mw)	4743	4859	NA
Peak Load, Summer (Mw)	3976	3816	3765
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+1.3	+1.1	+1.1
Fixed Charge Cov. (%)	298	266	265

ANNUAL RATES

of change (per sh)	Past 10 Yrs.	Past 5 Yrs	Est'd '17-'19 to '23-'25
Revenues	-1.5%	-1.0%	*3.0%*
"Cash Flow"	3.5%	4.0%	*5.5%*
Earnings	3.5%	4.0%	*4.0%*
Dividends	4.0%	5.5%	*5.5%*
Book Value	3.0%	3.5%	*3.0%*

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	530	449	515	515	2009
2018	493	449	525	524	1991
2019	573	460	542	548	2123
2020	573	*422*	*550*	*555*	*2100*
2021	*580*	*490*	*580*	*575*	*2200*

Calendar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.82	.36	.44	.67	2.29
2018	.72	.51	.59	.55	2.37
2019	.82	.28	.61	.68	2.39
2020	.91	*.29*	*.40*	*.70*	*2.30*
2021	*.85*	*.40*	*.55*	*.75*	*2.55*

Calendar	QUARTERLY DIVIDENDS PAID B ■ † Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	.30	.30	.32	.32	1.24
2017	.32	.32	.34	.34	1.32
2018	.34	.34	.3625	.3625	1.41
2019	.3625	.3625	.385	.385	1.50
2020	.385	.385	.385		

BUSINESS: Portland General Electric Company (PGE) provides electricity to 899,000 customers in 52 cities in a 4,000-square-mile area of Oregon, including Portland and Salem. The company is in the process of decommissioning the Trojan nuclear plant, which it closed in 1993. Electric revenue breakdown: residential, 47%, commercial, 30%, industrial, 9%, other, 14%. Generating sources: gas, 36%, coal, 19%, wind, 8%, hydro, 6%, purchased, 31%. Fuel costs 29% of revenues '19. Reported depreciation rate: 3.6%. Has 2,900 employees. Chairman, Jack E. Davis. President and Chief Executive Officer, Maria M. Pope. Incorporated: Oregon. Address: 121 S.W. Salmon Street, Portland, Oregon 97204. Telephone: 503-464-8000. Internet: www.portlandgeneral.com

Portland General Electric slashed its 2020 earnings guidance upon issuing first-quarter results in late April. Not surprisingly, this was due to the effects of the weak economy and the costs of dealing with the coronavirus problem. Although PGE operates under a regulatory mechanism that decouples revenues and volume, this only partially protects the utility from the effects of the slump in kilowatt-hour sales. What's more, unlike many states, Oregon has not issued an accounting order that allows the company to defer for future recovery coronavirus-related expenses. (PGE did not report how much these costs were in the March quarter, nor did management state its expectation for the full year.) All told, the company lowered its 2020 targeted range for share profits from $2.50-$2.65 to $2.20-$2.50. The stock price has declined 24% this year, which is a larger falloff than for most utility issues. PGE's announcement prompted us to reduce our estimate from $2.50 to $2.30. Because any growth in 2021 will come off a lower base, we trimmed our expectation by $0.10, to $2.55.

The board of directors did not increase the dividend in the second quarter. This is noteworthy because this is when the board usually raises the disbursement. The directors will review the dividend every quarter, but we think they will be cautious until an economic recovery is clearly under way. We don't know when this will occur, but are estimating a hike in the first quarter of 2021. PGE's target for the payout ratio is 60%-70%.

The company cut its capital budget for 2020 and 2021. The reductions were $145 million for this year and $30 million for next year. Some of this spending will be deferred until 2022 or later. Two key projects were still on track as of late April: a $200 million integrated operations center and a $160 million investment for a one-third stake in a wind project. PGE won't need to issue equity to finance its spending, but has already issued debt. More issuances are likely by yearend.

This stock has an average dividend yield, by utility standards. Total return potential is attractive for the 18-month span, but doesn't stand out for the 3- to 5-year period.

Paul E. Debbas, CFA *July 24, 2020*

(A) Diluted EPS. Excl nonrecurring losses '13, 42¢, '17, 19¢. Next earnings report due late July. (B) Div'ds paid mid-Jan., Apr., July, and Oct. ■ Div'd reinvestment plan avail. † Shareholder investment plan avail. (C) Incl. deferred charges. In '19: $483 mill., $5.40/sh. (D) In mill. (E) Rate base: Net orig. cost. Rate allowed on com. eq. in '19: 9.5%, earned on avg. com. eq., '19: 8.4%. Regulatory Climate: Average. (F) '05 per-share data are pro forma, based on shs outstanding when stock began trading in '06.

Company's Financial Strength	B++
Stock's Price Stability	95
Price Growth Persistence	75
Earnings Predictability	90

XCEL ENERGY NDQ-XEL

RECENT PRICE 64.17 | P/E RATIO 23.3 (Trailing: 24.8 Median: 16.0) | RELATIVE P/E RATIO 1.13 | DIV'D YLD 2.8% | VALUE LINE

TIMELINESS 3 Lowered 9/20/19
SAFETY 1 Raised 5/1/15
TECHNICAL 1 Raised 7/24/20
BETA .75 (1.00 = Market)

18-Month Target Price Range
Low-High Midpoint (% to Mid)
$47-$99 $73 (15%)

2023-25 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	65	(Nil)	4%
Low	55	(-15%)	Nil

Institutional Decisions

	3Q2019	4Q2019	1Q2020
to Buy	347	395	365
to Sell	333	320	378
Hld's(000)	407757	409339	407479

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	© VALUE LINE PUB. LLC	23-25
High	21.9	24.4	27.8	29.9	31.8	37.6	38.3	45.4	52.2	54.1	66.1	72.1								Target Price Range
Low	16.0	19.8	21.2	25.8	26.8	27.3	31.8	35.2	40.0	41.5	47.7	46.6								2023 2024 2025
	20.84	23.86	24.16	23.40	24.69	21.08	21.38	21.90	20.76	21.92	23.11	21.72	21.90	22.46	22.44	21.98	*19.10*	*20.30*	Revenues per sh	*22.75*
	3.27	3.28	3.61	3.45	3.50	3.48	3.51	3.79	4.00	4.10	4.28	4.56	5.04	5.47	5.92	6.25	*6.50*	*7.05*	"Cash Flow" per sh	*8.50*
	1.27	1.20	1.35	1.35	1.46	1.49	1.56	1.72	1.85	1.91	2.03	2.10	2.21	2.30	2.47	2.64	*2.75*	*2.90*	Earnings per sh [A]	*3.50*
	.81	.85	.88	.91	.94	.97	1.00	1.03	1.07	1.11	1.20	1.28	1.36	1.44	1.52	1.62	*1.72*	*1.82*	Div'd Decl'd per sh [B] ■	*2.15*
	3.19	3.25	4.00	4.89	4.66	3.91	4.60	4.53	5.27	6.82	6.33	7.26	6.42	6.54	7.70	8.05	*6.70*	*7.05*	Cap'l Spending per sh	*8.50*
	12.99	13.37	14.28	14.70	15.35	15.92	16.76	17.44	18.19	19.21	20.20	20.89	21.73	22.56	23.78	25.24	*27.20*	*28.45*	Book Value per sh [C]	*32.25*
	400.46	403.39	407.30	428.78	453.79	457.51	482.33	486.49	487.96	497.97	505.73	507.54	507.22	507.76	514.04	524.54	*539.00*	*542.00*	Common Shs Outst'g [D]	*548.00*
	13.6	15.4	14.8	16.7	13.7	12.7	14.1	14.2	14.8	15.0	15.4	16.5	18.5	20.2	18.9	22.3	*Bold figures are Value Line estimates*		Avg Ann'l P/E Ratio	*17.0*
	.72	.82	.80	.89	.82	.85	.90	.89	.94	.84	.81	.83	.97	1.02	1.02	1.21			Relative P/E Ratio	*.95*
	4.7%	4.6%	4.4%	4.0%	4.7%	5.1%	4.5%	4.2%	3.9%	3.9%	3.8%	3.7%	3.3%	3.1%	3.3%	2.7%			Avg Ann'l Div'd Yield	*3.6%*
	10311	10655	10128	10915	11686	11024	11107	11404	11537	11529	*10300*	*11000*	Revenues ($mill)	*12500*
	727.0	841.4	905.2	948.2	1021.3	1063.6	1123.4	1171.0	1261.0	1372.0	*1445*	*1570*	Net Profit ($mill)	*1865*
	37.5%	35.8%	33.2%	33.8%	33.9%	35.8%	34.1%	30.7%	12.6%	8.5%	*Nil*	*Nil*	Income Tax Rate	*Nil*
	11.7%	9.4%	10.8%	13.4%	12.5%	7.7%	7.8%	9.4%	12.4%	8.3%	*10.0%*	*8.0%*	AFUDC % to Net Profit	*8.0%*
	53.1%	51.1%	53.3%	53.3%	53.0%	54.1%	56.3%	55.9%	56.4%	56.8%	*57.0%*	*57.0%*	Long-Term Debt Ratio	*57.5%*
	46.3%	48.9%	46.7%	46.7%	47.0%	45.9%	43.7%	44.1%	43.6%	43.2%	*43.0%*	*43.0%*	Common Equity Ratio	*42.5%*
	17452	17331	19018	20477	21714	23092	25216	25975	28025	30646	*34175*	*35950*	Total Capital ($mill)	*41700*
	20663	22353	23809	26122	28757	31206	32842	34329	36944	39483	*41025*	*42600*	Net Plant ($mill)	*48300*
	5.7%	6.5%	6.1%	6.0%	6.0%	5.8%	5.7%	5.8%	5.7%	5.6%	*5.5%*	*5.5%*	Return on Total Cap'l	*5.5%*
	8.9%	9.9%	10.2%	9.9%	10.0%	10.0%	10.2%	10.2%	10.3%	10.4%	*10.0%*	*10.0%*	Return on Shr. Equity	*10.5%*
	8.9%	9.9%	10.2%	9.9%	10.0%	10.0%	10.2%	10.2%	10.3%	10.4%	*10.0%*	*10.0%*	Return on Com Equity [E]	*10.5%*
	3.6%	4.3%	4.7%	4.5%	4.5%	4.3%	4.0%	3.9%	4.3%	4.4%	*3.5%*	*4.0%*	Retained to Com Eq	*4.0%*
	59%	56%	54%	54%	55%	57%	61%	62%	58%	58%	*63%*	*63%*	All Div'ds to Net Prof	*63%*

% TOT. RETURN 6/20

	THIS STOCK	VL ARITH.* INDEX
1 yr	7.9	-5.1
3 yr	48.8	6.8
5 yr	127.0	24.4

CAPITAL STRUCTURE as of 3/31/20
Total Debt $19877 mill Due in 5 Yrs $4990 mill
LT Debt $17010 mill LT Interest $721 mill
Incl $77 mill capitalized leases
(LT interest earned 2.9x)

Leases, Uncapitalized Annual rentals $262 mill
Pension Assets-12/19 $3184 mill
Oblig $3701 mill
Pfd Stock None

Common Stock 525,170,820 shs
as of 4/30/20
MARKET CAP: $34 billion (Large Cap)

ELECTRIC OPERATING STATISTICS

	2017	2018	2019
% Change Retail Sales (KWH)	-.7	+3.2	-1.2
Large C & I Use (MWH)	22642	23004	NA
Large C & I Revs per KWH (c)	6.36	5.91	5.96
Capacity at Peak (Mw)	NA	NA	NA
Peak Load, Summer (Mw)	19591	20293	20146
Annual Load Factor (%)	NA	NA	NA
% Change Customers (yr-end)	+.9	+1.1	+1.0
Fixed Charge Cov. (%)	330	281	272

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '17-'19 to '23-'25
Revenues	-.5%	.5%	*.5%*
"Cash Flow"	5.5%	7.5%	*6.5%*
Earnings	5.5%	5.0%	*6.0%*
Dividends	5.0%	6.5%	*6.0%*
Book Value	4.5%	4.5%	*5.0%*

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	2946	2645	3017	2796	11404
2018	2951	2658	3048	2880	11537
2019	3141	2577	3013	2798	11529
2020	2811	*2189*	*2700*	*2600*	*10300*
2021	*3000*	*2400*	*2850*	*2750*	*11000*

Cal-endar	EARNINGS PER SHARE [A] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2017	.47	.45	.97	.42	2.30
2018	.57	.52	.96	.42	2.47
2019	.61	.46	1.01	.56	2.64
2020	.56	*.54*	*1.10*	*.55*	*2.75*
2021	*.65*	*.55*	*1.15*	*.55*	*2.90*

Cal-endar	QUARTERLY DIVIDENDS PAID [B] ■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2016	.32	.34	.34	.34	1.34
2017	.34	.36	.36	.36	1.42
2018	.36	.38	.38	.38	1.50
2019	.38	.405	.405	.405	1.60
2020	.405	.43	.43		

BUSINESS: Xcel Energy Inc. is the parent of Northern States Power, which supplies electricity to Minnesota, Wisconsin, North Dakota, South Dakota & Michigan & gas to Minnesota, Wisconsin, North Dakota & Michigan. P.S. of Colorado, which supplies electricity & gas to Colorado, & Southwestern Public Service, which supplies electricity to Texas & New Mexico. Customers: 3.7 mill. elec., 2.1 mill. gas. Elec. rev. breakdown: res'l, 31%, sm. comm'l & ind'l, 36%, lg. comm'l & ind'l, 18%, other, 15%. Generating sources not avail. Fuel costs: 39% of revs. '19 reported depr. rate: 3.3%. Has 11,300 empls. Chairman & CEO: Ben Fowke. President & COO: Bob Frenzel. Inc.: MN. Address: 414 Nicollet Mall, Minneapolis, MN 55401. Tel.: 612-330-5500. Internet: www.xcelenergy.com

Xcel Energy's utilities have reached settlements on pending rate cases. The New Mexico commission approved a settlement calling for a $31 million electric increase for Southwestern Public Service, based on a 9.45% return on equity and a 54.8% common-equity ratio. New tariffs took effect on May 28th. In Texas, SPS reached a "black box" agreement calling for an $88 million hike without specifying an allowed ROE or common-equity ratio. A ruling from the state regulators is expected in the current quarter, with the increase retroactive to September of 2019. Public Service of Colorado, the state commission's staff, and intervenors have reached a settlement calling for a gas rate increase of $76.9 million, based on a 9.2% ROE and a 55.6% common-equity ratio. If the regulators approve the agreement, new tariffs will be implemented on April 1, 2021, retroactive to November of 2020.

Xcel believes it can reduce expenses enough to offset the effects of the recession on kilowatt-hour sales. Cost cuts should enable operating and maintenance expenses to decline 4%-5% in 2020. Accordingly, management did not adjust its earnings guidance of $2.73-$2.83 a share for this year. Our estimate of $2.75 a share is unchanged. We have also stuck with our 2021 estimate of $2.90 a share. This would produce profit growth of 5%, which is within the company's annual goal of 5%-7%.

At least one rate case is upcoming. P.S. of Colorado plans to put forth an electric application later this summer. Northern States Power is considering filing for new electric and gas tariffs in Minnesota in November, but might well postpone its case if it can reach an agreement with the commission that compensates the utility for the decline in volume.

This high-quality stock has been one of the top performers in the electric utility industry in 2020. While the prices of most electric equities have fallen more than 10%, Xcel is almost unchanged from yearend 2019, thanks in part to its maintaining profit guidance. The dividend yield is a percentage point below the industry average, and with the recent quotation near the top of our 2023-2025 Target Price Range, total return potential is low.

Paul E. Debbas, CFA *July 24, 2020*

(A) Diluted EPS. Excl. nonrecurring gain (losses): '10, 5¢; '15, (16¢); '17, (5¢); gains (losses) on discontinued ops: '04, (30¢); '05, 3¢; '06, 1¢; '09, (1¢); '10, 1¢; '17 EPS don't sum due to rounding. Next earnings report due late July. (B) Div'ds historically paid mid-Jan., Apr., July, and Oct. ■ Div'd reinvestment plan available. (C) Incl. intangibles. In '19: $5.60/sh. (D) In mill. (E) Rate base: Varies. Rate allowed on com. eq. (blended): 9.6%, earned on avg. com. eq., '19: 10.8%. Regulatory Climate: Average

Company's Financial Strength	A+
Stock's Price Stability	95
Price Growth Persistence	60
Earnings Predictability	100

Southwestern Electric Power Company
Summary of Risk Premium Models for the
Proxy Group of Fourteen Electric Companies

	Proxy Group of Fourteen Electric Companies
Predictive Risk Premium Model (PRPM) (1)	10.27 %
Risk Premium Using an Adjusted Total Market Approach (2)	10.80 %
Average	10.54 %

Notes:
(1) From page 2 of this Schedule.
(2) From page 3 of this Schedule.

Southwestern Electric Power Company
Indicated ROE
Derived by the Predictive Risk Premium Model (1)

Proxy Group of Fourteen Electric Companies	[1] LT Average Predicted Variance	[2] Spot Predicted Variance	[3] Recommended Variance (2)	[4] GARCH Coefficient	[5] Predicted Risk Premium (3)	[6] Risk-Free Rate (4)	[7] Indicated ROE (5)
ALLETE	0.28%	0.46%	0.28%	2.1192	7.48%	2.09%	9.57%
Alliant Energy	0.27%	0.30%	0.27%	2.6418	8.82%	2.09%	10.91%
Ameren Corp.	0.23%	0.22%	0.23%	1.9633	5.53%	2.09%	7.62%
Duke Energy	0.31%	0.36%	0.31%	1.7551	6.78%	2.09%	8.87%
Edison Int'l	0.43%	0.84%	0.43%	1.4702	7.90%	2.09%	9.99%
Entergy Corp.	0.40%	0.72%	0.40%	2.2346	11.29%	2.09%	13.38%
IDACORP, Inc	0.28%	0.36%	0.28%	2.1772	7.69%	2.09%	9.78%
NorthWestern Corp.	0.34%	0.64%	0.34%	2.4412	10.29%	2.09%	12.38%
OGE Energy	0.31%	0.55%	0.31%	2.1622	8.33%	2.09%	10.42%
Otter Tail Corp.	0.37%	0.49%	0.37%	1.5713	7.28%	2.09%	9.37%
Pinnacle West Capital	0.60%	0.51%	0.60%	1.2494	9.38%	2.09%	11.47%
PNM Resources	0.53%	0.71%	0.53%	1.2825	8.48%	2.09%	10.57%
Portland General	0.26%	0.59%	0.26%	2.0274	6.48%	2.09%	8.57%
Xcel Energy Inc.	0.27%	0.26%	0.27%	2.8017	9.64%	2.09%	11.73%
						Average	10.33%
						Median	10.21%
					Average of Mean and Median		10.27%

Notes

(1) The Predictive Risk Premium Model uses historical data to generate a predicted variance and a GARCH coefficient. The historical data used are the equity risk premiums for the first available trading month as reported by Bloomberg Professional Service

(2) Given current market conditions, I recommend using the long-term average predicted variance.

(3) (1+(Column [3] * Column [4])^12) - 1

(4) From note 2 on page 2 of Schedule DWD-5

(5) Column [5] + Column [6].

Southwestern Electric Power Company
Indicated Common Equity Cost Rate
Through Use of a Risk Premium Model
Using an Adjusted Total Market Approach

Line No.		Proxy Group of Fourteen Electric Companies
1.	Prospective Yield on Aaa Rated Corporate Bonds (1)	3.03 %
2.	Adjustment to Reflect Yield Spread Between Aaa Rated Corporate Bonds and A Rated Public Utility Bonds	0.61 (2)
3.	Adjusted Prospective Yield on A Rated Public Utility Bonds	3.64 %
4.	Adjustment to Reflect Bond Rating Difference of Proxy Group	0.14 (3)
5.	Adjusted Prospective Bond Yield	3.78 %
6.	Equity Risk Premium (4)	7.02
7.	Risk Premium Derived Common Equity Cost Rate	10.80 %

Notes:
(1) Consensus forecast of Moody's Aaa Rated Corporate bonds from Blue Chip Financial Forecasts (see pages 10-11 of this Schedule).

(2) The average yield spread of A rated public utility bonds over Aaa rated corporate bonds of 0.61% from page 4 of this Schedule.

(3) Adjustment to reflect the A3 Moody's LT issuer rating of the Utility Proxy Group as shown on page 5 of this Schedule. The 0.14% upward adjustment is derived by taking 1/3 of the spread between A2 and Baa2 Public Utility Bonds (1/3 * 0.41% = 0.14%) as derived from page 4 of this Schedule.

(4) From page 7 of this Schedule.

Southwestern Electric Power Company
Interest Rates and Bond Spreads for
Moody's Corporate and Public Utility Bonds

Selected Bond Yields

	[1] Aaa Rated Corporate Bond	[2] A Rated Public Utility Bond	[3] Baa Rated Public Utility Bond
Jul-2020	2.03 %	2.56 %	2.93 %
Jun-2020	2.41	3.07	3.44
May-2020	2.49	3.14	3.63
Average	2.31 %	2.92 %	3.33 %

Selected Bond Spreads

A Rated Public Utility Bonds Over Aaa Rated Corporate Bonds: 0.61 % (1)

Baa Rated Public Utility Bonds Over A Rated Public Utility Bonds: 0.41 % (2)

Notes:
(1) Column [2] - Column [1].
(2) Column [3] - Column [2].

Source of Information:
Bloomberg Professional Service

Southwestern Electric Power Company
Comparison of Long-Term Issuer Ratings for
Proxy Group of Fourteen Electric Companies

	Moody's		Standard & Poor's	
	Long-Term Issuer Rating		Long-Term Issuer Rating	
	July 2020		July 2020	
Proxy Group of Fourteen Electric Companies	Long-Term Issuer Rating (1)	Numerical Weighting (2)	Long-Term Issuer Rating (1)	Numerical Weighting (2)
ALLETE	A3	7.0	NR	--
Alliant Energy	A3/Baa1	7.5	A/A-	6.5
Ameren Corp.	A3	7.0	BBB+	8.0
Duke Energy	A3	7.0	A-	7.0
Edison Int'l	Baa2	9.0	BBB	9.0
Entergy Corp.	Baa1/Baa2	8.5	A-	7.0
IDACORP, Inc.	A3	7.0	BBB	9.0
NorthWestern Corp.	NR	--	NR	--
OGE Energy	A3	7.0	A-	7.0
Otter Tail Corp.	A3	7.0	BBB+	8.0
Pinnacle West Capital	A2	6.0	A-	7.0
PNM Resources	Baa1	8.0	BBB+/BBB	8.5
Portland General	A3	7.0	BBB+	8.0
Xcel Energy Inc.	A3	7.0	A-	7.0
Average	A3	7.3	BBB+	7.7

Notes:

(1) Ratings are that of the average of each company's utility operating subsidiaries.
(2) From page 6 of this Schedule.

Source Information: Moody's Investors Service
Standard & Poor's Global Utilities Rating Service

Numerical Assignment for
Moody's and Standard & Poor's Bond Ratings

Moody's Bond Rating	Numerical Bond Weighting	Standard & Poor's Bond Rating
Aaa	1	AAA
Aa1	2	AA+
Aa2	3	AA
Aa3	4	AA-
A1	5	A+
A2	6	A
A3	7	A-
Baa1	8	BBB+
Baa2	9	BBB
Baa3	10	BBB-
Ba1	11	BB+
Ba2	12	BB
Ba3	13	BB-
B1	14	B+
B2	15	B
B3	16	B-

Southwestern Electric Power Company
Judgment of Equity Risk Premium for
Proxy Group of Fourteen Electric Companies

Line No.		Proxy Group of Fourteen Electric Companies
1.	Calculated equity risk premium based on the total market using the beta approach (1)	9.42 %
2.	Mean equity risk premium based on a study using the holding period returns of public utilities with A rated bonds (2)	5.77
3.	Predicted Equity Risk Premium Based on Regression Analysis of 1,167 Fully-Litigated Electric Utility Rate Cases	5.88
4.	Average equity risk premium	7.02 %

Notes: (1) From page 8 of this Schedule.
(2) From page 12 of this Schedule.
(3) From page 13 of this Schedule.

Southwestern Electric Power Company
Derivation of Equity Risk Premium Based on the Total Market Approach
Using the Beta for the
Proxy Group of Fourteen Electric Companies

Line No.	Equity Risk Premium Measure	Proxy Group of Fourteen Electric Companies
	Ibbotson-Based Equity Risk Premiums:	
1.	Ibbotson Equity Risk Premium (1)	5.78 %
2.	Regression on Ibbotson Risk Premium Data (2)	9.34
3.	Ibbotson Equity Risk Premium based on PRPM (3)	9.55
4.	Equity Risk Premium Based on Value Line Summary and Index (4)	13.50
5.	Equity Risk Premium Based on Value Line S&P 500 Companies (5)	10.63
6.	Equity Risk Premium Based on Bloomberg S&P 500 Companies (6)	10.72
7.	Conclusion of Equity Risk Premium	9.92 %
8.	Adjusted Beta (7)	0.95
9.	Forecasted Equity Risk Premium	9.42 %

Notes provided on page 9 of this Schedule.

Southwestern Electric Power Company
Derivation of Equity Risk Premium Based on the Total Market Approach
Using the Beta for the
Proxy Group of Fourteen Electric Companies

Notes:

(1) Based on the arithmetic mean historical monthly returns on large company common stocks from Ibbotson® SBBI® 2020 Market Report minus the arithmetic mean monthly yield of Moody's average Aaa and Aa corporate bonds from 1926-2019.

(2) This equity risk premium is based on a regression of the monthly equity risk premiums of large company common stocks relative to Moody's average Aaa and Aa rated corporate bond yields from 1928-2019 referenced in Note 1 above.

(3) The Predictive Risk Premium Model (PRPM) is discussed in the accompanying direct testimony. The Ibbotson equity risk premium based on the PRPM is derived by applying the PRPM to the monthly risk premiums between Ibbotson large company common stock monthly returns and average Aaa and Aa corporate monthly bond yields, from January 1928 through July 2020.

(4) The equity risk premium based on the Value Line Summary and Index is derived by subtracting the average consensus forecast of Aaa corporate bonds of 3.03% (from page 3 of this Schedule) from the projected 3-5 year total annual market return of 16.53% (described fully in note 1 on page 2 of Schedule DWD-5).

(5) Using data from Value Line for the S&P 500, an expected total return of 13.66% was derived based upon expected dividend yields and long-term earnings growth estimates as a proxy for capital appreciation. Subtracting the average consensus forecast of Aaa corporate bonds of 3.03% results in an expected equity risk premium of 10.63%.

(6) Using data from the Bloomberg Professional Service for the S&P 500, an expected total return of 13.75% was derived based upon expected dividend yields and long-term earnings growth estimates as a proxy for capital appreciation. Subtracting the average consensus forecast of Aaa corporate bonds of 3.03% results in an expected equity risk premium of 10.72%.

(7) Average of mean and median beta from page 1 of Schedule DWD-5.

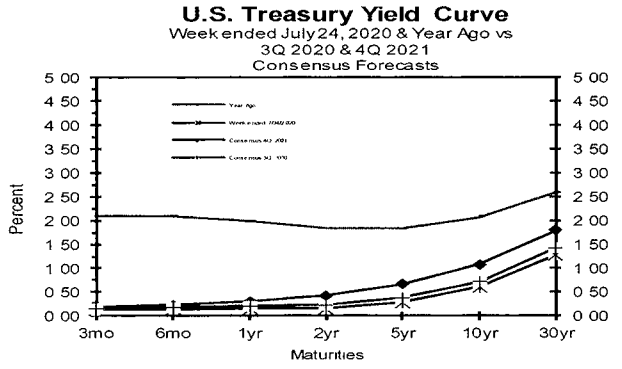
Sources of Information:

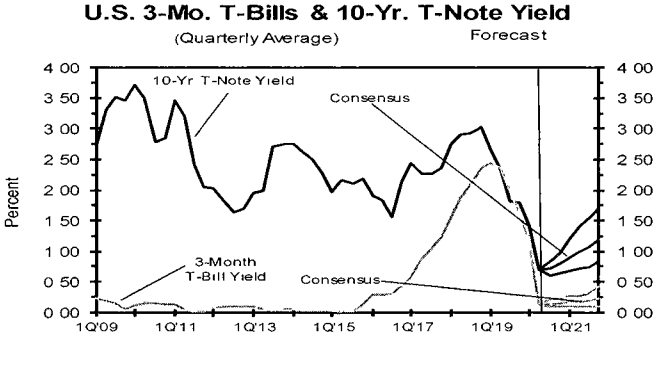
Stocks, Bonds, Bills, and Inflation - 2020 SBBI Yearbook, John Wiley & Sons, Inc.
Industrial Manual and Mergent Bond Record Monthly Update.
Value Line Summary and Index
Blue Chip Financial Forecasts, June 1, 2020 and July 31, 2020
Bloomberg Professional Service

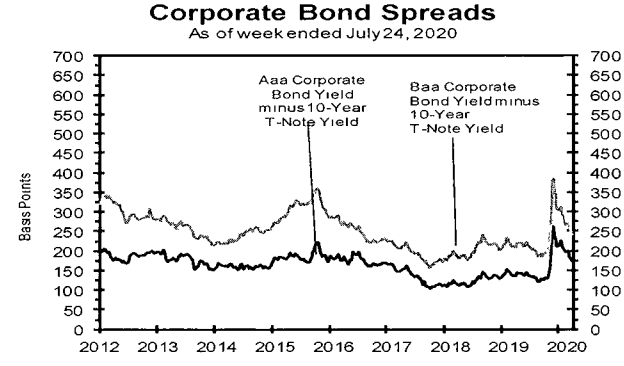
Consensus Forecasts of U.S. Interest Rates and Key Assumptions

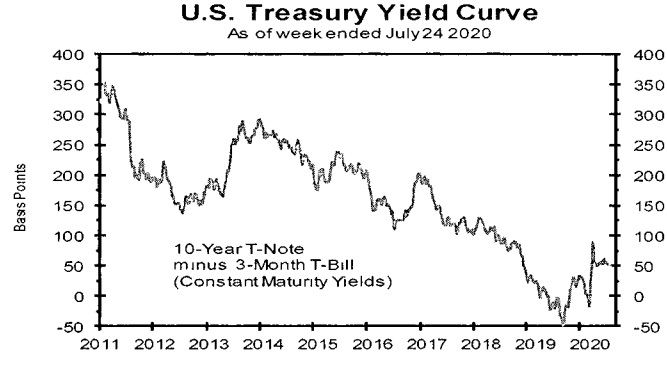
	History								Consensus Forecasts-Quarterly Avg.					
	Average For Week Ending				Average For Month			*Latest Qtr*	3Q	4Q	1Q	2Q	3Q	4Q
Interest Rates	Jul 24	Jul 17	Jul 10	Jul 3	Jun	May	Apr	2Q 2020	2020	2020	2021	2021	2021	2021
Federal Funds Rate	0 09	0 09	0 09	0 08	0 08	0 05	0 05	0.06	0.1	0.1	0.1	0.1	0.1	0.1
Prime Rate	3 25	3 25	3 25	3.25	3 25	3 25	3 25	3 25	3.3	3.3	3.3	3.3	3.3	3.3
LIBOR, 3-mo	0 25	0 27	0 27	0 30	0 31	0 40	1 09	0 60	0.4	0.4	0.4	0.4	0.5	0.5
Commercial Paper, 1-mo	0 12	0 12	0 12	0 11	0 12	0 13	0 47	0 24	0.2	0.2	0.2	0.2	0.3	0.3
Treasury bill, 3-mo	0 12	0 13	0 14	0 15	0.16	0 13	0.14	0 14	0.1	0.2	0.2	0.2	0.2	0.2
Treasury bill, 6-mo.	0 14	0 14	0 16	0.17	0.18	0 15	0.17	0 17	0.2	0.2	0.2	0.2	0.2	0.3
Treasury bill, 1 yr	0.15	0.15	0.15	0.16	0 18	0 16	0 18	0 17	0.2	0.2	0.2	0.3	0.3	0.4
Treasury note, 2 yr	0 15	0 15	0 16	0 16	0 19	0 17	0 22	0 19	0.2	0.3	0.3	0.3	0.4	0.5
Treasury note, 5 yr	0 27	0 29	0 30	0.29	0 34	0 34	0.39	0 36	0.4	0.4	0.5	0.6	0.7	0.8
Treasury note, 10 yr	0 60	0.63	0 66	0.67	0 73	0.67	0 66	0 69	0.7	0.8	0.9	1.0	1.1	1.2
Treasury note, 30 yr	1 28	1 32	1 37	1 42	1 49	1 38	1.27	1 38	1.4	1.5	1.6	1.7	1.8	1.9
Corporate Aaa bond	2 34	2 43	2 50	2 64	2 73	2 85	2 86	2 81	2.4	2.5	2.6	2.7	2.7	2.8
Corporate Baa bond	3 02	3 14	3 22	3 34	3 44	3 69	3 87	3 67	3.6	3.7	3.8	3.8	3.9	3.9
State & Local bonds	2 94	3 00	3.05	3.07	3 10	3.33	3 41	3.28	2.5	2.5	2.6	2.6	2.7	2.8
Home mortgage rate	3 01	2.98	3 03	3 07	3 16	3 23	3 31	3 23	3.1	3.1	3.1	3.2	3.2	3.3
	History								Consensus Forecasts-Quarterly					
	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Key Assumptions	2018	2018	2019	2019	2019	2019	2020	2020	2020	2020	2021	2021	2021	2021
Fed's AFE $ Index	107 8	109 4	109.4	110 3	110 5	110.3	111 2	112 4	109.7	109.7	109.7	109.5	109.3	109.1
Real GDP	2.1	1.3	2 9	1 5	2 6	2 4	-5 0	-32 9	18.4	6.7	5.8	4.7	4.0	3.4
GDP Price Index	1 8	1 8	1 2	2 5	1.5	1 4	1 4	-1 8	1.5	1.3	1.5	1.6	1.7	1.7
Consumer Price Index	2 1	1 3	0 9	3 0	1 8	2 4	1 2	-3 5	2.5	1.7	1.9	1.7	2.0	2.0

Forecasts for interest rates and the Federal Reserve's Major Currency Index represent averages for the quarter Forecasts for Real GDP, GDP Price Index and Consumer Price Index are seasonally-adjusted annual rates of change (saar) Individual panel members' forecasts are on pages 4 through 9 Historical data Treasury rates from the Federal Reserve Board's H 15, AAA-AA and A-BBB corporate bond yields from Bank of America-Merrill Lynch and are 15+ years, yield to maturity, State and local bond yields from Bank of America-Merrill Lynch, A-rated, yield to maturity, Mortgage rates from Freddie Mac, 30-year, fixed, LIBOR quotes from Intercontinental Exchange All interest rate data are sourced from Haver Analytics Historical data for Fed's Major Currency Index are from FRSR H 10 Historical data for Real GDP and GDP Chained Price Index are from the Bureau of Economic Analysis (BEA) Consumer Price Index (CPI) history is from the Department of Labor's Bureau of Labor Statistics (BLS)









Long-Range Survey:

The table below contains the results of our twice-annual long-range CONSENSUS survey There are also Top 10 and Bottom 10 averages for each variable Shown are consensus estimates for the years 2021 through 2026 and averages for the five-year periods 2022-2026 and 2027-2031 Apply these projections cautiously Few if any economic, demographic and political forces can be evaluated accurately over such long time spans.

		Average For The Year						Five-Year Averages	
		2021	2022	2023	2024	2025	2026	2022-2026	2027-2031
1 Federal Funds Rate	**CONSENSUS**	**0.2**	**0.4**	**1.0**	**1.6**	**1.9**	**2.1**	**1.4**	**2.3**
	Top 10 Average	0 4	0 8	1 6	2 2	2 5	2 7	1 9	2 8
	Bottom 10 Average	0 1	0 1	0 4	1 0	1 3	1 5	0 9	1 7
2 Prime Rate	**CONSENSUS**	**3.4**	**3.6**	**4.1**	**4.7**	**5.0**	**5.2**	**4.5**	**5.4**
	Top 10 Average	3 5	3 9	4 6	5 3	5 5	5 7	5 0	5 9
	Bottom 10 Average	3 3	3 3	3 7	4 2	4 5	4 7	4 1	4 9
3 LIBOR, 3-Mo	**CONSENSUS**	**0.6**	**0.9**	**1.4**	**2.0**	**2.3**	**2.4**	**1.8**	**2.6**
	Top 10 Average	0 8	1 3	1 9	2 5	2 7	3 0	2 3	3 1
	Bottom 10 Average	0 4	0 5	0 9	1 6	1 9	2 0	1 4	2 1
4 Commercial Paper, 1-Mo	**CONSENSUS**	**0.6**	**0.9**	**1.4**	**2.0**	**2.2**	**2.3**	**1.7**	**2.6**
	Top 10 Average	0 7	1 2	1 8	2 3	2 6	2 8	2 1	3 0
	Bottom 10 Average	0 3	0 5	1 1	1 6	1 9	2 0	1 4	2 2
5 Treasury Bill Yield, 3-Mo	**CONSENSUS**	**0.2**	**0.5**	**1.1**	**1.6**	**1.9**	**2.1**	**1.4**	**2.3**
	Top 10 Average	0 4	0 9	1 6	2 2	2 4	2 6	1 9	2 8
	Bottom 10 Average	0 1	0 2	0 5	1 1	1 4	1 6	0 9	1 8
6 Treasury Bill Yield, 6-Mo	**CONSENSUS**	**0.3**	**0.6**	**1.1**	**1.7**	**2.0**	**2.2**	**1.5**	**2.5**
	Top 10 Average	0 4	0 9	1 7	2 3	2 6	2 7	2 0	3 0
	Bottom 10 Average	0 2	0 2	0 6	1 2	1 5	1 7	1 1	1 9
7 Treasury Bill Yield, 1-Yr	**CONSENSUS**	**0.4**	**0.7**	**1.3**	**1.8**	**2.1**	**2.3**	**1.7**	**2.6**
	Top 10 Average	0 5	1 1	1 8	2 4	2 7	2 9	2 2	3 1
	Bottom 10 Average	0 2	0 3	0 7	1 3	1 6	1 8	1 1	2 0
8 Treasury Note Yield, 2-Yr	**CONSENSUS**	**0.5**	**0.9**	**1.5**	**2.0**	**2.3**	**2.5**	**1.8**	**2.7**
	Top 10 Average	0 8	1 3	2 0	2 5	2 9	3 0	2 4	3 3
	Bottom 10 Average	0 3	0 4	0 9	1 4	1 7	2 0	1 3	2 2
9 Treasury Note Yield, 5-Yr	**CONSENSUS**	**0.7**	**1.1**	**1.7**	**2.2**	**2.5**	**2.7**	**2.0**	**2.9**
	Top 10 Average	1 1	1 6	2 3	2 8	3 1	3 3	2 6	3 5
	Bottom 10 Average	0 5	0 7	1 2	1 6	1 8	2 1	1 5	2 3
10 Treasury Note Yield, 10-Yr	**CONSENSUS**	**1.2**	**1.5**	**2.1**	**2.5**	**2.7**	**2.9**	**2.3**	**3.1**
	Top 10 Average	1 5	2 0	2 6	3 1	3 3	3 5	2 9	3 8
	Bottom 10 Average	0 8	1 1	1 6	1 9	2 1	2 2	1 8	2 5
11 Treasury Bond Yield, 30-Yr	**CONSENSUS**	**1.8**	**2.2**	**2.7**	**3.1**	**3.3**	**3.5**	**3.0**	**3.8**
	Top 10 Average	2 2	2 7	3 3	3 7	3 9	4 1	3 5	4 4
	Bottom 10 Average	1 4	1 7	2 2	2 6	2 8	2 9	2 4	3 1
12 Corporate Aaa Bond Yield	**CONSENSUS**	**2.8**	**3.2**	**3.6**	**4.0**	**4.2**	**4.3**	**3.9**	**4.6**
	Top 10 Average	3 1	3 6	4 2	4 6	4 7	4 8	4 4	5 1
	Bottom 10 Average	2 4	2 7	3 1	3 5	3 7	3 8	3 4	4 2
13 Corporate Baa Bond Yield	**CONSENSUS**	**4.1**	**4.5**	**4.9**	**5.2**	**5.3**	**5.4**	**5.0**	**5.7**
	Top 10 Average	4 6	5 0	5 4	5 7	5 8	6 0	5 6	6 2
	Bottom 10 Average	3 6	3 9	4 3	4 6	4 7	4 8	4 4	5 2
14 State & Local Bonds Yield	**CONSENSUS**	**2.6**	**3.0**	**3.5**	**3.7**	**3.8**	**3.8**	**3.6**	**4.1**
	Top 10 Average	3 0	3 3	3 9	4 2	4 3	4 4	4 0	4 6
	Bottom 10 Average	2 3	2 6	2 9	3 2	3 2	3 3	3 0	3 7
15 Home Mortgage Rate	**CONSENSUS**	**3.4**	**3.6**	**4.0**	**4.4**	**4.5**	**4.7**	**4.2**	**4.9**
	Top 10 Average	3 8	4 0	4 5	4 8	5 0	5 2	4 7	5 5
	Bottom 10 Average	3 0	3 2	3 5	3 9	4 1	4 1	3 7	4 4
A Fed's AFE Nominal $ Index	**CONSENSUS**	**112.8**	**112.6**	**112.5**	**111.8**	**111.4**	**111.0**	**111.9**	**110.6**
	Top 10 Average	114 1	114 5	114 1	113 8	113 5	113 4	113 9	113 9
	Bottom 10 Average	111 7	110 7	110 7	110 2	109 5	108 7	110 0	107 6
		Year-Over-Year, % Change						Five-Year Averages	
		2021	2022	2023	2024	2025	2026	2022-2026	2027-2031
B Real GDP	**CONSENSUS**	**3.2**	**3.2**	**2.4**	**2.2**	**2.1**	**2.0**	**2.4**	**2.1**
	Top 10 Average	5 7	4 3	2 9	2 5	2 3	2 3	2 9	2 4
	Bottom 10 Average	0 5	2 2	1 9	1 9	1 8	1 8	1 9	1 8
C GDP Chained Price Index	**CONSENSUS**	**1.1**	**1.7**	**1.9**	**2.0**	**2.0**	**2.0**	**1.9**	**2.0**
	Top 10 Average	1 8	2 2	2 2	2 2	2 3	2 2	2 2	2 2
	Bottom 10 Average	0 3	1 3	1 6	1 8	1 8	1 8	1 7	1 9
D Consumer Price Index	**CONSENSUS**	**1.3**	**2.0**	**2.1**	**2.1**	**2.1**	**2.1**	**2.1**	**2.2**
	Top 10 Average	2 2	2 5	2 3	2 3	2 4	2 3	2 4	2 4
	Bottom 10 Average	0 4	1 5	1 8	1 8	1 9	1 9	1 8	2 0